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ABSTRACT

This document, the Department of Education's standard educational program classification system for secondary and postsecondary schools, supersedes all previous editions. The manual is divided into seven chapters, each of which contains, in numerical order, the complete list of currently active Classification of Instructional Programs (CIP) 6-digit codes pertaining to the topic of that chapter, arranged in 4-digit and 2-digit series. Chapters are organized as follows: chapter 1, academic and occupationally specific instructional programs; chapter 2, comprehensive homemaking skills programs; chapter 3, technology education programs offered in middle and secondary schools; chapter 4, Reserve Officer Training Corps programs; chapter 5, personal improvement and leisure-time activity programs; chapter 6, dental, medical, and veterinary residency programs; and chapter 7 instructional programs leading to diplomas and certificates awarded at the secondary educational level only. Seven appendixes provide the following materials: a chart linking 1990 codes to 1985 codes; a crosswalk of 1985 codes; all 1985 codes deleted in the 1990 list; all programs added to the 1990 list; an alphabetical listing of all 1990 codes; a glossary of CIP terms, and a list of CIP review participants and their affiliations. (JB)

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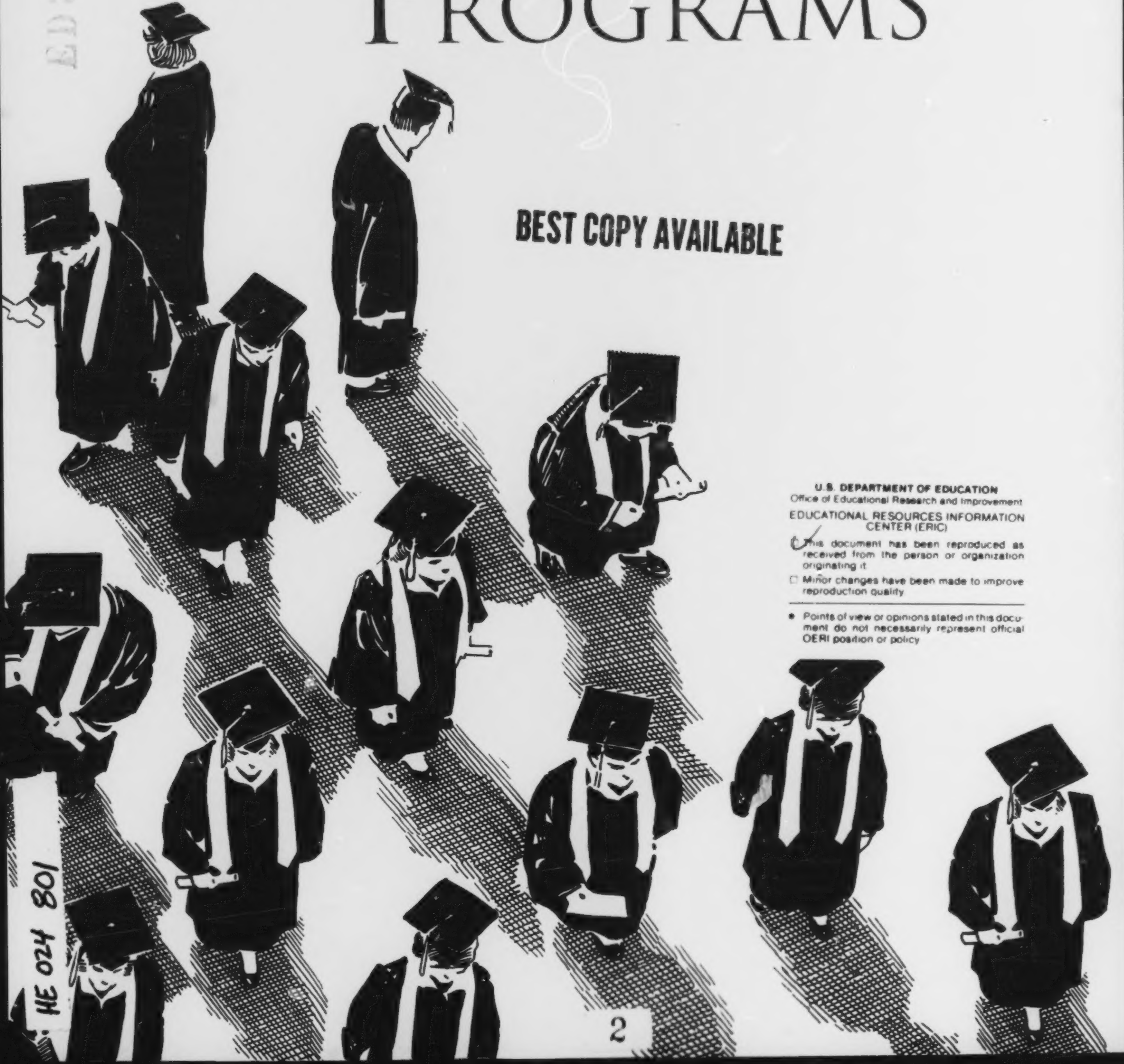

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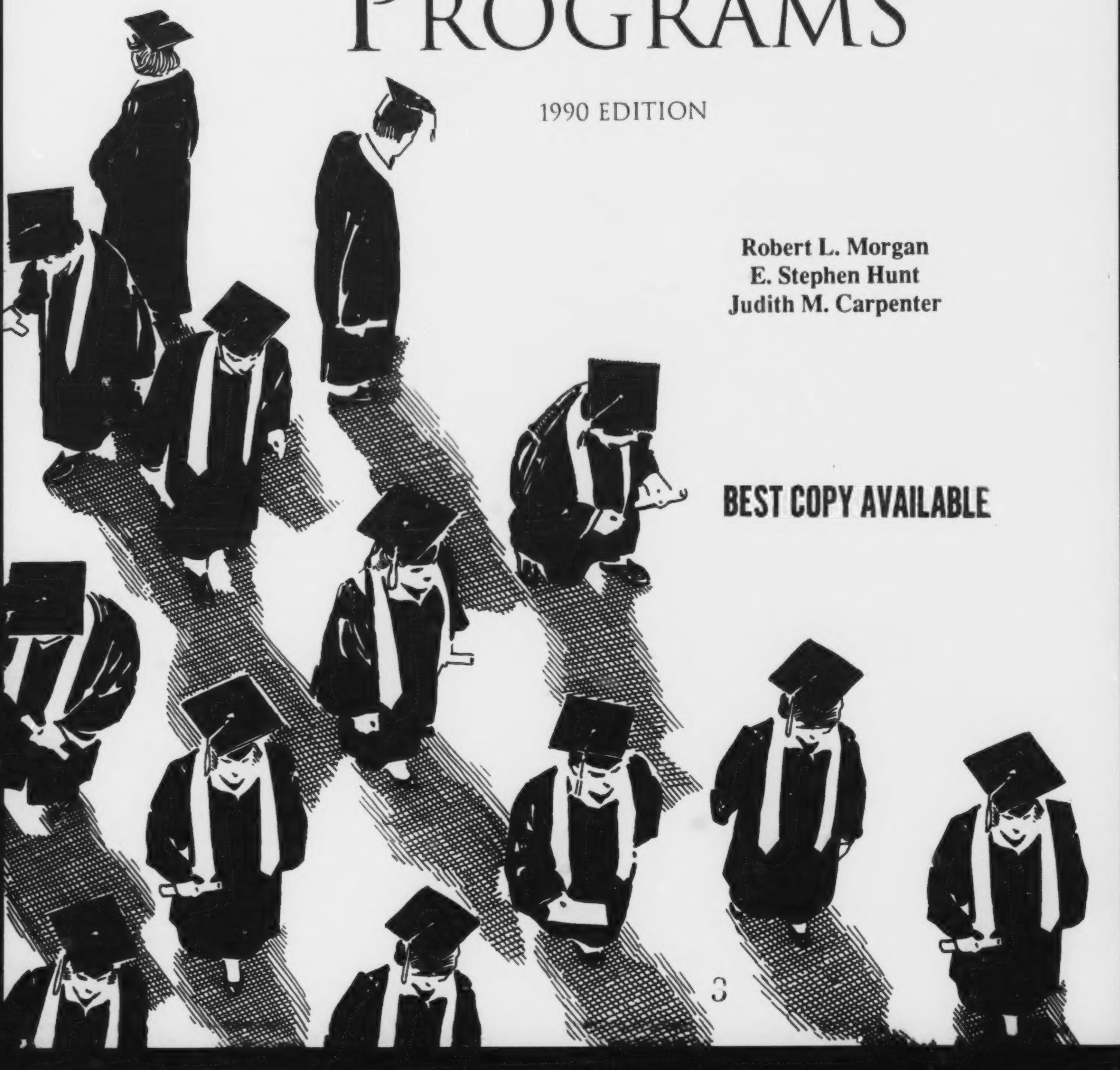
CLASSIFICATION OF INSTRUCTIONAL PROGRAMS

1990 EDITION



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FOREWORD

The Classification of Instructional Programs (CIP) was originally developed by the U.S. Department of Education's National Center for Education Statistics (NCES) in 1979-80 and revised for the first time in 1985. This publication represents the second revision and clarifies education program descriptions and titles. The 1990 edition is the product of an extensive investment of time and work and reflects the considerable changes in educational programs that have taken place since the CIP was originally developed. Programs at the secondary, postsecondary, and adult education levels are covered in this volume. CIP is used in all NCES surveys and is the accepted government standard on programs for education information surveys.

Since first published, CIP has been used by NCES in the Integrated Postsecondary Education Data System (IPEDS) and its predecessor, the Higher Education General Information Survey (HEGIS), as well as in the Vocational Education Data System (VEDS). CIP has also been used by other components of the Department of Education, such as the Office of Civil Rights, the Office of Vocational and Adult Education, and the Office of Special Education. In addition, CIP is used as the data standard on instructional programs for other federal agencies, including the National Occupational Information Coordinating Committee (NOICC), the National Science Foundation and the National Academy of Sciences, the Departments of Commerce (Bureau of the Census) and Labor (Bureau of Labor Statistics), and others. It is also used by state agencies and national associations.

Revisions to a nationwide coding scheme such as CIP require that users of these codes be given ample time and assistance to implement the codes within their own databases and reporting systems. Consequently, the NCES does not plan to implement the new CIP until the mailout of the IPEDS survey forms in the summer of 1992. As part of that package, several of the questionnaires require program completion data by field of study for the prior academic year (1991-92).

The extended phase-in outlined above is probably sufficient for the transition from the 1985 to the 1990 codes. However, in an effort to ease the transition, CIP users may obtain a copy of this entire manual on diskette from NCES. The diskette will also include files that can be used directly to replace 1985 CIP codes with their 1990 equivalent. Additional information on the conversion process and obtaining the diskette may be found on page iii. Since HEGIS and Handbook VI crosswalks are no longer acceptable as reporting standards, it is particularly important for all data providers to implement the 1990 CIP as the basis for their operations.

Paul R. Hall
Acting Associate Commissioner
Postsecondary Education Statistics Division

William H. Freund
Chief
Institutional Studies Branch

ACKNOWLEDGMENTS

This publication was accomplished with extensive help from well over two hundred individuals representing state, federal, institutional, and association interests. This revision to CIP is the result of their contributions and the empirical examination of reported data. Their names and affiliations are listed in Appendix H.

Special thanks are extended to those individuals who contributed guidance to the 1990 CIP Review process and who gave more than expected of their time and expertise. These individuals include, within the Department of Education, Clifford Adelman, Director of the Higher Education and Adult Learning Division, OR/OERI, who contributed special analyses from the NLS-72 Postsecondary Student Transcript Study and who developed a subject-matter crosswalk to the CIP; Roslyn A. Korb, Senior Statistician, PSED/NCES, who contributed special analyses based on the Recent College Graduates Surveys and solutions to difficult procedural problems; and Gerald S. Malitz, Senior Statistician, E/SESD/NCES, who contributed knowledge based on his authorship of previous CIP editions and solutions to difficult problems of incorporating high school data codes into the revised classification system.

Outside the Department of Education, we gratefully acknowledge the efforts of Pamela Frugoli, National Occupational Information Coordinating Committee (NOICC); Philip B. Sheldon, Virginia Polytechnic Institute and State University, representing the Association for Institutional Research (AIR); Wayne Becraft, Executive Director of the American Association of College Registrars and Admissions Officers (AACRAO); and Ronnie Posner, Assistant Executive Director, American Vocational Association (AVA). Each of these individuals advised NCES during all stages of the 1990 CIP update.

TRADEMARKS

The National Center for Education Statistics (NCES) has made every effort to supply trademarks relating to company names, products and services mentioned in Appendix I. Trademarks indicated below were derived from various sources, but NCES cannot attest to the accuracy of this information.

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OBTAINING CIP CODE DISKETTES

Data providers and collectors who use the CIP are urged to obtain diskettes available from the National Center for Educational Statistics (NCES). The diskettes are a service to data providers to facilitate reporting based on the 1990 CIP.

The 1990 Classification of Instructional Programs (CIP) is available on diskette. To use the diskette, you will need an IBM PC® or compatible microcomputer running under MS- or PC-DOS® (Version 2.0 or higher). A hard disk with at least 2MB of free space is strongly recommended. You will also need a laserjet printer with a nine-point proportional font (Swiss is used in this manual). With the exception of three additional files, all portions of the manual are in WordPerfect® (Version 5.1). The additional files are in ASCII code and may be used for uploading or downloading CIP codes to and from mainframe computers and microcomputers. These specific files are as follows:

1) **CIP90.PRN**: A file containing all 1990 6-digit CIP codes and program titles, including additions, that are used by postsecondary education institutions to report annual program completions and biennial occupationally specific enrollment data for the Integrated Postsecondary Education Data System (IPEDS). This file is a subset of Appendix E (which contains all 1990 codes).

2) **CIP90OCC.PRN**: A file containing all 1990 6-digit occupationally-specific CIP codes, including additions.

3) **CIP8590.PRN**: A file where each record (line) contains the 1985 CIP code, its corresponding 1990 code plus the 1990 program title. It is the ASCII version of Appendix B, Chapter I.

These ASCII files were created to assist postsecondary education institutions in converting from the 1985 CIP to the 1990 version for reporting IPEDS survey data. **None of these ASCII files contain "invalid" program codes for reporting IPEDS program completions or occupationally specific enrollments on IPEDS survey forms.** In particular, the following CIP code series are omitted from each file: 20.01 (Consumer and Homemaking Education); 21.01 (Technology Education/Industrial Arts); 28.01 through 28.04 (R.O.T.C. programs); 32 through 37 (Personal Improvement and Leisure Programs); and 51.28 through 51.30 (Dental, Medical and Veterinary Residency Programs). In a few cases, there may be graduate programs in dental, medical or veterinary clinical sciences which lead to academic degree awards. In each case, these awards should be reported in 51.0501, 51.1401, and 51.2501 respectively.

Conversions from 1985 to 1990 codes must be handled with care. For example, while the CIP8590.PRN file may be used to replace existing 1985 codes with their 1990 counterparts, there are some potential problems. Deletions are a case in point. All 1985 deleted codes have a single 1990 replacement code **with five exceptions**. Codes 17.0499, 18.0701, 20.0403, 26.0201 and 26.0602 were deleted but their programs were divided and placed into two other CIP codes. In these cases, the 1985 codes appear twice in the CIP8590.PRN file (because there are two 1990 codes) and you and/or your Registrar will have to determine what proportion of your program completions or enrollments to allocate between the 1990 programs. It should also be noted that two codes were deleted (18.0404, Oral/Maxial Facial Surgery and 28.0201, Coast Guard Science) and no corresponding 1990 codes have been identified. Another example is program additions. The CIP8590.PRN file does not contain new 1990 programs. These new programs, listed in Appendix D and included in both CIP90.PRN and CIP90OCC.PRN, should be brought to the attention of those individuals responding to surveys requesting program completion or enrollment data. In many cases, these persons are the ones who identified new programs and may recognize the program titles.

To obtain a diskette with these files, format a 5¼" high density diskette at 1.2 MB or a 3½" high density diskette at 1.44 MB and mail it with a short note requesting the 1990 CIP manual to:

Institutional Studies Branch
Postsecondary Education Statistics Division, NCES
555 New Jersey Avenue NW
Room 320
Washington, DC 20208-5652
Attn: Ms. Paulette Vanderhorst

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INTRODUCTION[1]

The 1990 Classification of Instructional Programs (CIP) is the second revision of the Department of Education's standard educational program classification system. This version supersedes all previous editions of the CIP, and will be used by the Department of Education as its taxonomic standard for federal surveys and state reporting of institutional data, including program offerings, program financial data, staffing data, enrollments and completions. The 1990 CIP is also the accepted guide for data reported to the federal government by individual institutions and other educational providers. Implementation is planned beginning with the 1991-92 academic year.

Background to the 1990 CIP Update

The CIP was originally developed in 1979 to replace two previous systems: Handbook VI, Standard Terminology for Curriculum and Instruction in Local and State School Systems (1970), for K-12 and postsecondary vocational programs; and A Taxonomy of Instructional Programs in Higher Education (1970), for postsecondary academic programs. Handbook VI was conceived in 1959, with work beginning in 1964, and was the product of an extensive interagency and intergovernmental development process. The Taxonomy of Instructional Programs in Higher Education was developed via a federal contract let in 1968, and was known more commonly as the HEGIS Program Classification System.

Both of these classification systems had become obsolete by the late 1970s, and NCES developed the CIP system to replace them. The development of CIP also allowed data providers and analysts to overcome incompatibility problems between Handbook VI and HEGIS, and to develop an integrated classification system capable of continuous updating. CIP had replaced both previous systems by 1980. A revision process was built into the CIP system that called for periodic review, and the first review and revision took place in 1985.

In 1987, work began on a second update of the CIP system. This process began with the planning of an extensive internal and external evaluation of all existing CIP codes and series. The review also included an examination of the organization of codes and series within the CIP, the conventions used in the text, and the standards employed for determining program inclusion, modification and deletion.

A series of CIP Review Meetings was held with representatives of users, data providers, and interested organizations, extending over all of 1989. Persons invited to these meetings included representatives from all program accrediting bodies recognized by the Department of Education, the State Higher Education Executive Officers' Organization (SHEEO) network, other state-level agencies concerned with education, various federal agencies, independent educational organizations and professional associations, educational institutions, and experts in the various subject-matter areas contained in the CIP. These representatives were asked to provide specific recommendations for the improvement of the CIP system. Following the meetings, correspondence with these representatives continued as drafts of the 1990 CIP were developed and reviewed.

In addition to the meetings and communications with external representatives and experts, NCES examined a wide variety of available data resources on educational programs, from government and private sources. Files of postsecondary institutional catalogs and course listings were analyzed, as were commercial data bases and the published lists of approved programs available from the same organizations that were also invited to the meetings. NCES also analyzed its own and other organizations' data files, including such resources as the National Longitudinal Study Postsecondary Transcript Data File, data bases sponsored by the National Occupational Information Coordinating Committee (NOICC), the NSF/NAS Survey of Earned Doctorates, the Dictionary of Occupational Titles of the Department of Labor, the Standard Occupational Classification System of the Department of Commerce, and various databases and publications of the Bureau of Labor Statistics and the Bureau of the Census, among others.

---

[1] The two principal technical authors of the 1990 CIP are Robert L. Morgan, Senior Statistician, Programs for the Improvement of Practice, OERI, and E. Stephen Hunt, Senior Research Analyst, Office of Research, OERI. Judith M. Carpenter, Statistician, NCES, was the project officer for the 1990 CIP Update Process from 1988 to 1990.

Numerous changes have been made as a result of the 1990 CIP revision process. These changes are described below and in the Users Guide, that immediately follows this introduction. The most important changes can be summarized as follows:

- Extensive code deletions and title/description changes, and the addition of new codes, reflect the evolution of education since the 1970s.
- Series have been reorganized in many cases, and in some instances codes have been moved.
- The document has been divided into seven chapters, reflecting the different types of instructional programs included in the system.

Principles Governing Instructional Programs in CIP

Concept Definition. For purposes of the CIP system, NCES defines an instructional program as follows:

> A combination of courses and experiences that is designed to accomplish a predetermined objective or set of allied objectives such as preparation for advanced study, qualification for an occupation or range of occupations, or simply the increase of knowledge and understanding. (Chismore and Hill, A Classification of Educational Subject Matter, NCES, 1978, p. 165.)

Under this definition, instructional programs, while containing courses and other learning experiences (such as laboratories, field experiences, practical applications, research assignments, etc.), are not merely the sum of such components. A list of courses, for example, cannot be equated with a program, much less a successfully completed program, unless there is evidence that an institution or other provider recognizes the existence of such a program and certifies completions of it. This point is set forth via the operational criteria described below.

Operational Criteria. There are two criteria that refine the conceptual definition for operational purposes:

> 1) An instructional program must be offered by, through, or under the auspices of an educational institution or other provider.
>
> 2) Accomplishment of predetermined objectives must mean, in practice, the presence of a set of structured learning experiences, as defined by an institution or other provider, that lead to a completion point, and that point must be formally certified via an award or other form of recognition.

Instructional programs that meet the above criteria include:

- Postsecondary programs culminating in the following awards: Postsecondary Certificates, Associate's Degrees, Bachelor's Degrees, Postbaccalaureate Certificates, Master's Degrees, Post-Master's Certificates, First-Professional Degrees, Specialist Degrees, Doctoral Degrees, and Post-Doctorate Certificates.
- Secondary programs culminating in the following awards: Regular High School Diplomas, College Preparatory Diplomas, Vocational Diplomas, Regents or Honors Diplomas, High School Equivalence Certificates, Certificates of Academic or Vocational Competence, and Certificates of IEP Completion.
- Secondary and postsecondary Cadet and Junior/Senior R.O.T.C. programs.
- Adult education programs leading to certificates of completion in credit or non-credit programs of various types.
- Residency programs conducted by the dental, medical, and veterinary professions that lead to advanced professional certification.

Decision Rules for Inclusion in CIP. An instructional program that meets the definitional criteria stated above is eligible for inclusion in CIP. To determine whether an eligible program is in fact included or excluded, the following decision rules are used:

- **Additions** have been based on (a) federal survey data showing that at least 30 completions have been reported over a three-year period in at least 10 postsecondary institutions in three or more states, in program areas not currently included in the 1985 CIP (via write-ins for the "other" codes in Series); (b) on testimony of cognizant authorities in a field who state, and provide evidence to show, that a new program exists and is offered; and/or (c) on empirical evidence of program viability based on the authors' review of primary sources and related data bases at both the secondary and postsecondary levels.

- **Deletions** have been based on (a) federal survey data showing that fewer than 30 completions were recorded over a three-year period, in less than 10 postsecondary institutions and spread across fewer than three states; (b) on testimony of cognizant authorities in a field who state, and provide evidence to show, that a program is no longer offered or recognized; and/or (c) on empirical evidence that a program is not in fact offered, based on the authors' review of primary sources and related data bases at both the secondary and postsecondary levels.

- **Modifications** to viable program titles and descriptions have been made where necessary to reflect dynamic changes in program terminology and instructional content at both the secondary and postsecondary levels, as well as in order to insure internal logical and organizational consistency within the CIP. Whenever changes have been made, the user is informed by means of cross references, crosswalks or notes.

In all cases of addition, deletion, or modification, as well as in cases where Series and codes have been moved to new locations in CIP, more than one source has been consulted.

Differentiating Programs from Subject Matter. Instructional programs (and their component courses and experiences) need to be carefully differentiated from the parallel concept of subject matter. NCES defines the difference as follows:

> Subject matter is the substance of knowledge. In contrast, programs constitute the form and style by which knowledge, or subject matter, is taught and learned. In most instances, but by no means all, instructional programs can be defined in terms of the subject matter of which they are composed. (Chismore and Hill, NCES, 1978, p. 165).

The converse is not true, however: subject matter is not usually defined by the instructional programs or experiences that organize and deliver it. In general, instructional programs deliver a portion of the knowledge base of a given subject matter area -- that which is defined by the institution offering a program as necessary and sufficient to qualify a student for certification as having satisfactorily completed it. Such a definition, while adequate to define a program, does not usually encompass the whole branch of knowledge, or subject matter, concerned.

Frequently, both subject matter and program may have the same name, since the purpose of the latter is to deliver knowledge about the former and to certify (upon successful completion of the program) competence in that portion of the subject matter thus delivered. This parallel relationship between instructional programs and their components on one hand, and the subject matter they deliver on the other, permits use of the CIP as a basis for efforts to construct subject matter classifications (Chismore and Hill, NCES, 1978; Adelman, OERI, 1990).

USERS GUIDE TO THE 1990 CLASSIFICATION OF INSTRUCTIONAL PROGRAMS (CIP)

Essential taxonomic principles of comprehensiveness, mutual exclusivity of elements, logical consistency, communicability and parsimony have guided NCES in developing and refining the CIP system since its inception. The CIP is a classification of program terms and descriptions reflecting the manner in which institutional instructional program data are organized, collected and reported. Its purpose is to define and classify instruction according to currently recognized awards and program completions.

The CIP is intended to establish standard terminology in order to improve communication and standardize record-keeping. Among the intended users of the CIP system, besides the federal government, are state governments, local governments, educational institutions, education research organizations, accrediting agencies, professional associations, and individual researchers. Specifically, the CIP is designed to:

- assist in collecting, reporting and interpreting data about instructional programs;
- aid those responsible for designing data collection instruments;
- indirectly assist in educational planning, resource allocation and review via standardized data categories;
- aid those responsible for responding to data requests; and
- serve as a tool to assist those who compile, verify and analyze instructional program data.

The organization of the 1990 CIP is described below, together with examples of each type of entry. Each Appendix and its purpose is also described.

Organization of the 1990 CIP

The 1990 CIP is divided into six Chapters, with each containing Series and codes appropriate to distinguish from the others. The Chapters contain the following types of instructional programs:

Chapter One -- Academic and occupationally specific instructional programs offered for regular credit at one or more educational levels, and including programs which result in recognized completion points and awards.

Chapter Two -- Comprehensive homemaking skills programs offered for credit in secondary schools and certain postsecondary situations, but that may not lead to regular completions or award certifications, and which may be confused with home economics programs listed in Chapter One.

Chapter Three -- Technology education programs offered for credit in middle and secondary schools, but that may not lead to regular completions or award certifications, and which may be confused with teacher education programs in technology education at the postsecondary level, as well as occupationally specific program codes that contain the word "technology" or "technician" in their titles.

Chapter Four -- Reserve Officer Training Corps (R.O.T.C.) programs offered for limited regular credit and leading to professionally recognized completions, but which do not lead to academic awards or completions.

Chapter Five -- Personal improvement and leisure-time activity programs that are not offered for credit and that may or may not lead to any recognized completion.

Chapter Six -- Residency programs in various dental, medical, and veterinary specializations offered in teaching hospitals and similar locations, leading to advanced professional certification.

Chapter Seven -- Instructional programs leading to diplomas and certificates awarded at the secondary educational level only, and not corresponding to instructional programs described in any other Chapter.

Each Chapter contains, in numerical order, the complete list of currently active CIP 6-digit codes pertaining to the topic of that Chapter, arranged in 4-digit and 2-digit Series. Users will note that the numerical sequences in Chapter I occasionally skip code or Series numbers. This is due to deletions of code numbers that appeared in prior editions of the CIP, and to moves of several 2- and 4-digit Series to new Chapters in this edition.

Following Chapter VII is a set of Appendices. These sections provide lists of CIP codes that serve specific needs of users. They are:

Appendix A -- A master Crosswalk linking 1990 CIP codes and Series to 1985 codes and Series.

Appendix B -- A Crosswalk of 1985 CIP codes, in numerical order from the previous edition, showing what the corresponding 1990 CIP code is.

Appendix C -- A numerical listing of 1985 CIP codes deleted in the 1990 CIP.

Appendix D -- A numerical listing of instructional programs added in the 1990 CIP.

Appendix E -- An alphabetical listing of all 1990 CIP codes.

Appendix F -- A Glossary of CIP and related NCES terms.

Appendix G -- List of 1990 CIP Review participants and their affiliations.

While not an Appendix per se, the Code and Title Listing that appears immediately after this Users Guide is a list, in numerical order, of every 2-, 4-, and 6-digit code and title in the 1990 CIP.

Organization Conventions

Standard formats are used in each Chapter to indicate the type of information conveyed by an entry. These formats refer to Series organization, active instructional program descriptions, cross-references, moves, deletions with crosswalks, and straight deletions. Each will be discussed in turn.

Two-Digit Series. Every CIP entry is aggregated into a specific 2-digit Series, indicated by the two-digit number -- followed by a period -- to the left of the title (Example: 01., 02., etc.). Titles are printed in bold-face type and are in all-capital letters. Every 2-digit descriptive text begins with the standard phrase "A summary of groups of instructional programs... ."

Four-Digit Series. Within 2-digit Series there is an intermediate aggregation known as a 4-digit Series. There is at least one 4-digit Series within each 2-digit Series, and the function of the 4-digit Series is to group together related 6-digit codes. Numbers for 4-digit Series consist of the 2-digit Series number, which precedes a period, followed by the number assigned to that 4-digit Series, beginning with 01 (Example: 01.01, 01.02, etc.). Titles are printed in bold-face type. Every 4-digit descriptive text begins with the standard phrase "A group of instructional programs... ."

Six-Digit Codes. Every 6-digit code corresponds to a single instructional program. There is a least one 6-digit code within every 4-digit Series, and they are separated by single line spacings. Numbers are as for 4-digit Series, with the addition of two more digits after the period corresponding to the number assigned to that specific code, beginning with 01 (Example: 01.0101, 01.0102, etc.). Titles are printed in bold-face type and correspond to actual titles of programs as currently used by institutions and other education providers. (Because the 1990 CIP attempts to employ titles actually used by institutions, inconsistencies may appear between titles of codes in this and previous editions, where titles were not chosen based on empirical usage.)

There are several conventions associated with 6-digit titles and program descriptions, as follows:

- Asterisks (*) preceding a code indicate a code historically used to report occupationally specific sub-baccalaureate program data relating to Federal vocational education legislation. Codes so marked are not exclusively restricted to such uses, however, and may also be used to report data on programs at other levels.

- Multiple titles separated by the word "and" indicate that programs using any of these names should be reported under this code and treated as similar, even though they may not be identical. Such programs were judged similar enough to be combined for data purposes.

- Multiple titles separated by slashes ("/") indicate that two or more interchangeable titles are in use for this program. In such cases, the most commonly used title appears first, with those following being frequently encountered. This format is intended to increase data accuracy by clarifying what is to be reported where, cutting down on entries in "other" or "general" unless a program genuinely qualifies for such treatment.

- Program descriptions for occupationally specific and/or professional programs generally begin with the phrase "An instructional program that prepares individuals for...", or contain the phrase "prepares individuals" within the text of the description.

- Program descriptions for academic or general programs generally begin with the phrase "An instructional program that describes... ."

- When a 6-digit program description contains a second sentence or clause that begins with "includes instruction in..." or "including...such as...", this is a sampling of the sort of subject matter that might be contained in such a program. It is not intended as a set of requirements, but only as a guide. Programs at different levels may cover more or fewer topics than are listed.

Cross-References. These are unnumbered entries that refer the user to related codes located elsewhere in CIP. A cross-reference may be to another 6-digit code, or to a 4-digit or 2-digit Series. When one appears, it will be preceded by dashes in the spaces normally occupied by the number. The title of the referenced code or Series will be printed in bold-face type, and then there will be a parenthetical statement like this: "(refer to ...)," containing the precise number of the referenced Series or code.

Moves. Moves indicate that a code or Series that occupied that spot in the 1985 CIP has been moved to a new location for 1990. Move entries look identical to cross-references, except that the parenthetical statement says "(moved to ...)", and notes the precise location that the code or Series now occupies.

Crosswalked Deletions. If a code or Series has been deleted as a separate entry, but also combined with another code or Series that continues to exist, the user will be alerted by a crosswalk notice in the space formerly occupied by the deleted entry. This will take the form of an unnumbered entry in which the dashes are followed by the deleted code or Series title, enclosed in brackets "[ ]". Following the bracketed title will be a parenthetical statement like this "(deleted, included under ...)," which refers the user to the number of the code or Series where such data are now to go.

Straight Deletions. If a code or Series has been completely deleted from the 1990 CIP, the user will find, in its former location, an unnumbered entry similar to a crosswalk deletion. The difference is that the parenthetical statement will simply say "(deleted)", with no numerical reference.

New Series Numbers for 1990. In two cases in the 1990 CIP, NCES and cognizant authorities determined that Series-level reorganization was advisable. Series 06. and .07 in the 1985 CIP have been reorganized, and the program codes that appeared in these Series are now located in a new Series 52., Business Management and Administrative Services, which combines both previous Series. Likewise, former Series 17. and 18. have been combined into a new Series 51., Health Professions and Related Sciences.

A new Series 53., High School/Secondary Diploma and Certificate Programs, was created for the 1990 CIP and placed in Chapter VII. It has not appeared in previous CIP editions, and includes codes for standard secondary level instructional programs.

Chapter Reorganizations. Besides new 2-digit Series, the 1990 CIP has moved four types of programs out of the academic and occupationally specific code list and into separate Chapters.

The 20.01 Series in the 2-digit Vocational Home Economics Series has also been moved and placed in Chapter II. This 4-digit Series refers to a group of programs offered to secondary students and adult learners designed to equip individuals with homemaking skills, and which could be confused with regular credit vocational and academic home economics programs with similar titles.

Series 21., Technology Education/Industrial Arts, has been moved to a new Chapter III of the same title as the Series.

Series 28., Military Sciences, which has historically seen little or no data reporting and actually refers to the partial-credit R.O.T.C. programs available on many postsecondary campuses. The Series was moved to Chapter IV and retitled Reserve Officer Training Corps (R.O.T.C.) Programs.

Series 32. through 37., which refer to non-credit personal improvement and leisure activity programs, have also been removed from the main listing in order to avoid potential confusion with regular credit programs having similar titles. They are now located in Chapter V.

The clinical residency programs associated with advanced certification programs in dentistry, medicine, and veterinary medicine have been placed in Chapter VI. These programs, while instructional, are not always offered in educational institutions, and data on them are only partially collected. In addition, such programs might be confused with clinical or basic research programs taught in educational institutions and that lead to academic degree completions.

Finally, a new Series 53. has been created and placed in Chapter VII, as indicated above.

Special Use Considerations for Certain Series

Series 08., now called Marketing Retailing and Wholesaling Operations, was formerly called Marketing and Distribution, and has been historically known as Distributive Education. Instructional programs described in this Series are offered primarily at the secondary school level, and less frequently at the postsecondary vocational/technical level. Series 08. programs should be carefully distinguished from marketing programs described in Series 52., Business Management and Administrative Services, which refer to traditional marketing disciplines taught in postsecondary business programs, as well as from marketing programs offered within the context of specific occupational programs elsewhere in the CIP.

Series 11. Computer and Information Sciences, and Series 52.12 Business Information and Data Processing Services, overlap somewhat in terms of the focus and subject matter coverage of instructional programs. Series 11. focuses on computer and information science programs that have general applicability and are commonly taught in departments and divisions of computer science. Series 52.12, by contrast, is intended to cover instructional programs in computer applications to business management, and computer-related programs offered in departments and school of business. Users should employ codes in Series 52.12 only for instructional programs directly pertaining to business applications located in business programs. All other computer science-related instruction should be reported via Series 11. (Computer-related instructional programs in engineering, engineering technology, and various maintenance/installation/repair fields are properly reported in Series 14., 15. and 47.)

Series 13. Education includes both preservice and inservice teacher education programs in 13.10, Special Education, 13.12, General Teacher Education and 13.13, Teacher Education, Specific Academic and Vocational Programs. The teacher education categories in 13.10, 13.12 and 13.13 are based on teacher certification categories used by states and these categories should be used as standard occupational classifications in surveys of educational staffing at the elementary and secondary education levels in order to assure the educational supply and demand data on teacher preparation, continuing education and occupational placement can be readily matched. Principal preparation programs should be reported under 13.0405, Elementary, Middle and Secondary Administration. School and Educational Psychology programs were both reported under 13.08, School Psychology in prior editions of the CIP. These two programs have been split and school psychology programs should be reported under 42.1701 and educational psychology programs should be reported under 13.0802.

Engineering programs, engineering-related technology programs, and occupationally specific programs in the technical trades are distinct types of programs, and should be carefully distinguished in data reporting. Engineering programs lead to 4-year bachelor's degrees or higher, prepare students to function as professional engineers or engage in advanced applied scientific research, and their program content is generally oriented as much toward mastery of applied physics and advanced calculus as toward practical applications and skills. Data on engineering programs should be reported under codes in Series 14. Engineering-related technology programs are generally offered at the sub-baccalaureate level, but may be 4-year or postbaccalaureate programs in some cases. They prepare individuals to support engineers and occasionally to function as independent practicioners, but are not the same as professional engineering degrees, and the content of such programs is more practically oriented than that of engineering programs. Data on such programs should be reported under codes in Series 15. Engineering and engineering-related technology programs are, additionally, usually accredited by the Accrediting Board for Engineering and Technology. Occupationally specific technical trades programs are offered at the sub-baccalaureate level and prepare students for work in various skilled trades, including such jobs as mechanics, repairers, installers, maintenance and service personnel, and workers in various industries. Such programs are generally practical in nature and involve training in the application of technical principles and standard operating procedures to the solution of routine problems. Data on occupationally specific technical trades programs should be reported under codes in Series 46., 47. and 48., as appropriate.

NCES data collection activities at the postsecondary level have isolated a reporting problem within the Home Economics (19.) and Vocational Home Economics (20.) Series. There are level distinctions between the two Series. College level enrollments and completions -- B.S. and above -- should be reported in the Home Economics (19.) Series, and some postsecondary education degree or certificate programs in community colleges and technical schools are also appropriately reported in this Series. The Vocational Home Economics (20.) Series is made up of two types of programs. The 20.01 Series is traditionally offered at the elementary and secondary levels to prepare individuals for the occupation of homemaker. This Series was historically referred to as "non-gainful home economics", and has been moved to Chapter II. Completion or degree data should not be reported within the 20.01 Series at any level. The remainder of the Vocational Home Economics (20.) Series, is occupationally specific with defined completion points offered at both the secondary and postsecondary levels. The highest degree for these Vocational Home Economics programs is the Associate of Arts or Sciences in community colleges. No Bachelor's or graduate degree (Master's, Doctorate) data should be reported under the 20. Series.

The Technology Education/Industrial Arts (21.) Series also does not always have formal completion points. This Series covers programs aimed at improving student understanding of industry and technology. Students are provided with educational experiences that overlap with occupational preparation. However, the intent of Technology Education is to increase awareness and understanding, not necessarily to develop job skills. The Series should be used primarily at the middle or secondary school levels and be carefully distinguished from occupationally-specific programs. Postsecondary degree awards should not be reported under the 21. Series unless such programs are different from those to be reported under Technology Teacher Education/Industrial Arts Teacher Education (13.1309).

Chapter VI, as previously noted, contains a listing of codes corresponding to currently recognized residency programs in dentistry, medicine, and veterinary medicine. In some cases, academic degrees may be awarded to individuals completing residency programs. These degrees are considered advanced degrees in dental, medical, or veterinary clinical science (as opposed to the basic sciences, which parallel many biological science disciplines). If an individual obtains an academic degree (M.S. or Ph.D.) in a clinical science (residency) program, that data should be reported under the appropriate clinical science code in Series 51., Chapter I. Completions of residency programs that do not result in academic degree awards should be reported under the residency codes in Chapter VI -- not under the codes in Chapter I.

Crosswalking Data from Obsolete Systems to the 1990 CIP

In prior editions of the CIP, crosswalks were provided to guide users in reporting data classified by HEGIS code (A Taxonomy of Instructional Programs in Higher Education, Huff and Chandler, 1970), or by Handbook VI code (Standard Terminology for Curriculum and Instruction in Local and State School Systems, Putnam and Chismore, 1970). Neither a HEGIS or a Handbook VI Crosswalk is provided for the 1990 CIP. Both of these classification systems were superseded by the CIP in 1980 and are now obsolete. Users who collect data under either of these older classification systems and then crosswalk reported data to the CIP risk significant inaccuracies.

INSTRUCTIONAL PROGRAM CODE AND TITLE LISTING - 1990

CHAPTER I

ACADEMIC AND OCCUPATIONALLY SPECIFIC PROGRAMS

01. AGRICULTURAL BUSINESS AND PRODUCTION

01.01 Agricultural Business and Management

01.0101 Agricultural Business and Management, General
01.0102 Agricultural Business/Agribusiness Operations
01.0103 Agricultural Economics
01.0104 Farm and Ranch Management
01.0199 Agricultural Business and Management, Other

01.02 Agricultural Mechanization

01.0201 Agricultural Mechanization, General
01.0204 Agricultural Power Machinery Operator
01.0299 Agricultural Mechanization, Other

01.03 Agricultural Production Workers and Managers

01.0301 Agricultural Production Workers and Managers, General
01.0302 Agricultural Animal Husbandry and Production Management
01.0303 Aquaculture Operations and Production Management
01.0304 Crop Production Operations and Management
01.0399 Agricultural Production Workers and Managers, Other

01.04 Agricultural and Food Products Processing

01.0401 Agricultural and Food Products Processing Operations and Management

01.05 Agricultural Supplies and Related Services

01.0501 Agricultural Supplies Retailing and Wholesaling
01.0505 Animal Trainer
01.0507 Equestrian/Equine Studies, Horse Management and Training
01.0599 Agricultural Supplies and Related Services, Other

01.06 Horticulture Services Operations and Management

01.0601 Horticulture Services Operations and Management, General
01.0603 Ornamental Horticulture Operations and Management
01.0604 Greenhouse Operations and Management
01.0605 Landscaping Operations and Management

01.0606 Nursery Operations and Management
01.0607 Turf Management
01.0699 Horticulture Services Operations and Management, Other

01.07 International Agriculture

01.0701 International Agriculture

01.99 Agricultural Business and Production, Other

01.9999 Agricultural Business and Production, Other

02. AGRICULTURAL SCIENCES

02.01 Agriculture/Agricultural Sciences

02.0101 Agriculture/Agricultural Sciences, General
02.0102 Agricultural Extension

02.02 Animal Sciences

02.0201 Animal Sciences, General
02.0202 Agricultural Animal Breeding and Genetics
02.0203 Agricultural Animal Health
02.0204 Agricultural Animal Nutrition
02.0205 Agricultural Animal Physiology
02.0206 Dairy Science
02.0209 Poultry Science
02.0299 Animal Sciences, Other

02.03 Food Sciences and Technology

02.0301 Food Sciences and Technology

02.04 Plant Sciences

02.0401 Plant Sciences, General
02.0402 Agronomy and Crop Science
02.0403 Horticulture Science
02.0405 Plant Breeding and Genetics
02.0406 Agricultural Plant Pathology
02.0407 Agricultural Plant Physiology
02.0408 Plant Protection (Pest Management)
02.0409 Range Science and Management
02.0499 Plant Sciences, Other

02.05 Soil Sciences

02.0501 Soil Sciences

02.99 Agriculture/Agricultural Sciences, Other

02.9999 Agriculture/Agricultural Sciences, Other

03. CONSERVATION AND RENEWABLE NATURAL RESOURCES

03.01 Natural Resources Conservation

03.0101 Natural Resources Conservation, General
03.0102 Environmental Science/Studies

03.02 Natural Resources Management and Protective Services

03.0201 Natural Resources Management and Policy
03.0203 Natural Resources Law Enforcement and Protective Services
03.0299 Natural Resources Management and Protective Services, Other

03.03 Fishing and Fisheries Sciences and Management

03.0301 Fishing and Fisheries Sciences and Management

03.04 Forest Production and Processing

03.0401 Forest Harvesting and Production Technology/Technician
03.0404 Forest Products Technology/Technician
03.0405 Logging/Timber Harvesting
03.0499 Forest Production and Processing, Other

03.05 Forestry and Related Sciences

03.0501 Forestry, General
03.0502 Forestry Sciences
03.0506 Forest Management
03.0509 Wood Science and Pulp/Paper Technology
03.0599 Forestry and Related Sciences, Other

03.06 Wildlife and Wildlands Management

03.0601 Wildlife and Wildlands Management

03.99 Conservation and Renewable Natural Resources, Other

03.9999 Conservation and Renewable Natural Resources, Other

04. ARCHITECTURE AND RELATED PROGRAMS

04.02 Architecture

04.0201 Architecture

04.03 City/Urban, Community and Regional Planning

04.0301 City/Urban, Community and Regional Planning

04.04 Architectural Environmental Design

04.0401 Architectural Environmental Design

04.05 Interior Architecture

04.0501 Interior Architecture

04.06 Landscape Architecture

04.0601 Landscape Architecture

04.07 Architectural Urban Design and Planning

04.0701 Architectural Urban Design and Planning

04.99 Architecture and Related Programs, Other

04.9999 Architecture and Related Programs, Other

05. AREA, ETHNIC AND CULTURAL STUDIES

05.01 Area Studies

05.0101 African Studies
05.0102 American Studies/Civilization
05.0103 Asian Studies
05.0104 East Asian Studies
05.0105 Eastern European Area Studies
05.0106 European Studies

05.0107 Latin American Studies
05.0108 Middle Eastern Studies
05.0109 Pacific Area Studies
05.0110 Russian and Slavic Area Studies
05.0111 Scandinavian Area Studies
05.0112 South Asian Studies
05.0113 Southeast Asian Studies
05.0114 Western European Studies
05.0115 Canadian Studies
05.0199 Area Studies, Other

05.02 Ethnic and Cultural Studies

05.0201 Afro-American (Black) Studies
05.0202 American Indian/Native American Studies
05.0203 Hispanic-American Studies
05.0204 Islamic Studies
05.0205 Jewish/Judaic Studies
05.0206 Asian-American Studies
05.0207 Women's Studies
05.0299 Ethnic and Cultural Studies, Other

05.99 Area, Ethnic and Cultural Studies, Other

05.9999 Area, Ethnic and Cultural Studies, Other

08. MARKETING OPERATIONS/MARKETING AND DISTRIBUTION

08.01 Apparel and Accessories Marketing Operations

08.0101 Apparel and Accessories Marketing Operations, General
08.0102 Fashion Merchandising
08.0103 Fashion Modeling
08.0199 Apparel and Accessories Marketing Operations, Other

08.02 Business and Personal Services Marketing Operations

08.0204 Business Services Marketing Operations
08.0205 Personal Services Marketing Operations
08.0299 Business and Personal Services Marketing Operations, Other

08.03 Entrepreneurship

08.0301 Entrepreneurship

08.04 Financial Services Marketing Operations

08.0401 Financial Services Marketing Operations

08.05 Floristry Marketing Operations

08.0503 Floristry Marketing Operations

08.06 Food Products Retailing and Wholesaling Operations

08.0601 Food Products Retailing and Wholesaling Operations

08.07 General Retailing and Wholesaling Operations and Skills

08.0701 Auctioneering
08.0704 General Buying Operations
08.0705 General Retailing Operations
08.0706 General Selling Skills and Sales Operations
08.0708 General Marketing Operations
08.0709 General Distribution Operations
08.0799 General Retailing and Wholesaling Operations and Skills, Other

08.08 Home and Office Products Marketing Operations

08.0809 Home Products Marketing Operations
08.0810 Office Products Marketing Operations
08.0899 Home and Office Products Marketing Operations, Other

08.09 Hospitality and Recreation Marketing Operations

08.0901 Hospitality and Recreation Marketing Operations, General
08.0902 Hotel/Motel Services Marketing Operations
08.0903 Recreation Products/Services Marketing Operations
08.0906 Food Sales Operations
08.0999 Hospitality and Recreation Marketing Operations, Other

08.10 Insurance Marketing Operations

08.1001 Insurance Marketing Operations

08.11 Tourism and Travel Services Marketing Operations

08.1104 Tourism Promotion Operations
08.1105 Travel Services Marketing Operations
08.1199 Tourism and Travel Services Marketing Operations, Other

08.12 Vehicle and Petroleum Products Marketing Operations

08.1203 Vehicle Parts and Accessories Marketing Operations
08.1208 Vehicle Marketing Operations
08.1209 Petroleum Products Retailing Operations
08.1299 Vehicle and Petroleum Products Marketing Operations, Other

08.13 Health Products and Services Marketing Operations

08.1301 Health Products and Services Marketing Operations

08.99 Marketing Operations/Marketing and Distribution, Other

08.9999 Marketing Operations/Marketing and Distribution, Other

09. COMMUNICATIONS

09.01 Communications, General

09.0101 Communications, General

09.02 Advertising

09.0201 Advertising

09.04 Journalism and Mass Communications

09.0401 Journalism
09.0402 Broadcast Journalism
09.0403 Mass Communications
09.0499 Journalism and Mass Communication, Other

09.05 Public Relations and Organizational Communications

09.0501 Public Relations and Organizational Communications

09.07 Radio and Television Broadcasting

09.0701 Radio and Television Broadcasting

09.99 Communications, Other

09.9999 Communications, Other

10. COMMUNICATIONS TECHNOLOGIES

10.01 Communications Technologies

10.0101 Educational/Instructional Media Technology/Technician
10.0103 Photographic Technology/Technician
10.0104 Radio and Television Broadcasting Technology/Technician

10.0199 Communications Technologies/Technicians, Other

11. COMPUTER AND INFORMATION SCIENCES

11.01 Computer and Information Sciences, General

11.0101 Computer and Information Sciences, General

11.02 Computer Programming

11.0201 Computer Programming

11.03 Data Processing Technology

11.0301 Data Processing Technology/Technician

11.04 Information Sciences and Systems

11.0401 Information Sciences and Systems

11.05 Computer Systems Analysis

11.0501 Computer Systems Analysis

11.07 Computer Science

11.0701 Computer Science

11.99 Computer and Information Sciences, Other

11.9999 Computer and Information Sciences, Other**12. PERSONAL AND MISCELLANEOUS SERVICES**

12.02 Gaming and Sports Officiating Services

12.0203 Card Dealer
12.0204 Umpires and Other Sports Officials
12.0299 Gaming and Sports Officiating Services, Other

12.03 Funeral Services and Mortuary Science

12.0301 Funeral Services and Mortuary Science

12.04 Cosmetic Services

12.0401 Cosmetic Services, General
12.0402 Barber/Hairstylist
12.0403 Cosmetologist
12.0404 Electrolysis Technician
12.0405 Massage
12.0406 Make-Up Artist
12.0499 Cosmetic Services, Other

12.05 Culinary Arts and Related Services

12.0501 Baker/Pastry Chef
12.0502 Bartender/Mixologist
12.0503 Culinary Arts/Chef Training
12.0504 Food and Beverage/Restaurant Operations Manager
12.0505 Kitchen Personnel/Cook and Assistant Training
12.0506 Meatcutter
12.0507 Waiter/Waitress and Dining Room Manager
12.0599 Culinary Arts and Related Services, Other

12.99 Personal and Miscellaneous Services, Other

12.9999 Personal and Miscellaneous Services, Other

13. EDUCATION

13.01 Education, General

13.0101 Education, General

13.02 Bilingual/Bicultural Education

13.0201 Bilingual/Bicultural Education

13.03 Curriculum and Instruction

13.0301 Curriculum and Instruction

13.04 Education Administration and Supervision

13.0401 Education Administration and Supervision, General
13.0402 Administration of Special Education
13.0403 Adult and Continuing Education Administration
13.0404 Educational Supervision
13.0405 Elementary, Middle and Secondary Education Administration
13.0406 Higher Education Administration
13.0407 Community and Junior College Administration

13.0499 Education Administration and Supervision, Other

13.05 Educational/Instructional Media Design

13.0501 Educational/Instructional Media Design

13.06 Educational Evaluation, Research and Statistics

13.0601 Educational Evaluation and Research
13.0603 Educational Statistics and Research Methods
13.0604 Educational Assessment, Testing and Measurement
13.0699 Educational Evaluation, Research and Statistics, Other

13.07 International and Comparative Education

13.0701 International and Comparative Education

13.08 Educational Psychology

13.0802 Educational Psychology

13.09 Social and Philosophical Foundations of Education

13.0901 Social and Philosophical Foundations of Education

13.10 Special Education

13.1001 Special Education, General
13.1003 Education of the Deaf and Hearing Impaired
13.1004 Education of the Gifted and Talented
13.1005 Education of the Emotionally Handicapped
13.1006 Education of the Mentally Handicapped
13.1007 Education of the Multiple Handicapped
13.1008 Education of the Physically Handicapped
13.1009 Education of the Blind and Visually Handicapped
13.1011 Education of the Specific Learning Disabled
13.1012 Education of the Speech Impaired
13.1013 Education of the Autistic
13.1099 Special Education, Other

13.11 Student Counseling and Personnel Services

13.1101 Counselor Education Counseling and Guidance Services
13.1102 College/Postsecondary Student Counseling and Personnel Services

13.12 General Teacher Education

13.1201 Adult and Continuing Teacher Education

13.1202 Elementary Teacher Education
13.1203 Junior High/Intermediate/Middle School Teacher Education
13.1204 Pre-Elementary/Early Childhood/Kindergarten Teacher Education
13.1205 Secondary Teacher Education
13.1206 Teacher Education, Multiple Levels
13.1299 General Teacher Education, Other

13.13 Teacher Education, Specific Academic and Vocational Programs

13.1301 Agricultural Teacher Education (Vocational)
13.1302 Art Teacher Education
13.1303 Business Teacher Education (Vocational)
13.1304 Driver and Safety Teacher Education
13.1305 English Teacher Education
13.1306 Foreign Languages Teacher Education
13.1307 Health Teacher Education
13.1308 Home Economics Teacher Education (Vocational)
13.1309 Technology Teacher Education/Industrial Arts Teacher Education
13.1310 Marketing Operations Teacher Education/Marketing and Distribution Teacher Education (Vocational)
13.1311 Mathematics Teacher Education
13.1312 Music Teacher Education
13.1314 Physical Education Teaching and Coaching
13.1315 Reading Teacher Education
13.1316 Science Teacher Education, General
13.1317 Social Science Teacher Education
13.1318 Social Studies Teacher Education
13.1319 Technical Teacher Education (Vocational)
13.1320 Trade and Industrial Teacher Education (Vocational)
13.1321 Computer Teacher Education
13.1322 Biology Teacher Education
13.1323 Chemistry Teacher Education
13.1324 Drama and Dance Teacher Education
13.1325 French Language Teacher Education
13.1326 German Language Teacher Education
13.1327 Health Occupations Teacher Education (Vocational)
13.1328 History Teacher Education
13.1329 Physics Teacher Education
13.1330 Spanish Language Teacher Education
13.1331 Speech Teacher Education
13.1399 Teacher Education, Specific Academic and Vocational Programs, Other

13.14 Teaching English as a Second Language/Foreign Language

13.1401 Teaching English as a Second Language/Foreign Language

13.15 Teacher Assistant/Aide

13.1501 Teacher Assistant/Aide

13.99 Education, Other

13.9999 Education, Other

14. ENGINEERING

14.01 **Engineering, General**

14.0101 Engineering, General

14.02 **Aerospace, Aeronautical and Astronautical Engineering**

14.0201 Aerospace, Aeronautical and Astronautical Engineering

14.03 **Agricultural Engineering**

14.0301 Agricultural Engineering

14.04 **Architectural Engineering**

14.0401 Architectural Engineering

14.05 **Bioengineering and Biomedical Engineering**

14.0501 Bioengineering and Biomedical Engineering

14.06 **Ceramic Sciences and Engineering**

14.0601 Ceramic Sciences and Engineering

14.07 **Chemical Engineering**

14.0701 Chemical Engineering

14.08 **Civil Engineering**

14.0801 Civil Engineering, General
14.0802 Geotechnical Engineering
14.0803 Structural Engineering
14.0804 Transportation and Highway Engineering
14.0805 Water Resources Engineering
14.0899 Civil Engineering, Other

14.09 Computer Engineering

14.0901 Computer Engineering

14.10 Electrical, Electronics and Communications Engineering

14.1001 Electrical, Electronics and Communication Engineering

14.11 Engineering Mechanics

14.1101 Engineering Mechanics

14.12 Engineering Physics

14.1201 Engineering Physics

14.13 Engineering Science

14.1301 Engineering Science

14.14 Environmental/Environmental Health Engineering

14.1401 Environmental/Environmental Health Engineering

14.15 Geological Engineering

14.1501 Geological Engineering

14.16 Geophysical Engineering

14.1601 Geophysical Engineering

14.17 Industrial/Manufacturing Engineering

14.1701 Industrial/Manufacturing Engineering

14.18 Materials Engineering

14.1801 Materials Engineering

14.19 Mechanical Engineering

14.1901 Mechanical Engineering

14.20 Metallurgical Engineering

14.2001 Metallurgical Engineering

14.21 Mining and Mineral Engineering

14.2101 Mining and Mineral Engineering

14.22 Naval Architecture and Marine Engineering

14.2201 Naval Architecture and Marine Engineering

14.23 Nuclear Engineering

14.2301 Nuclear Engineering

14.24 Ocean Engineering

14.2401 Ocean Engineering

14.25 Petroleum Engineering

14.2501 Petroleum Engineering

14.27 Systems Engineering

14.2701 Systems Engineering

14.28 Textile Sciences and Engineering

14.2801 Textile Sciences and Engineering

14.29 Engineering Design

14.2901 Engineering Design

14.30 Engineering/Industrial Management

14.3001 Engineering/Industrial Management

14.31 Materials Science

14.3101 Materials Science

14.32 Polymer/Plastics Engineering

14.3201 Polymer/Plastics Engineering

14.99 Engineering, Other

14.9999 Engineering, Other

15. ENGINEERING-RELATED TECHNOLOGIES

15.01 Architectural Engineering Technology

15.0101 Architectural Engineering Technology/Technician

15.02 Civil Engineering/Civil Technology

15.0201 Civil Engineering/Civil Technology/Technician

15.03 Electrical and Electronic Engineering-Related Technology

15.0301 Computer Engineering Technology/Technician
15.0303 Electrical, Electronic and Communications Engineering Technology/Technician
15.0304 Laser and Optical Technology/Technician
15.0399 Electrical and Electronic Engineering-Related Technologies/Technicians, Other

15.04 Electromechanical Instrumentation and Maintenance Technology

15.0401 Biomedical Engineering-Related Technology/Technician
15.0402 Computer Maintenance Technology/Technician
15.0403 Electromechanical Technology/Technician
15.0404 Instrumentation Technology/Technician
15.0405 Robotics Technology/Technician
15.0499 Electromechanical Instrumentation and Maintenance Technologies/Technicians, Other

15.05 Environmental Control Technologies

15.0501 Heating, Air Conditioning and Refrigeration Technology/Technician
15.0503 Energy Management and Systems Technology/Technician
15.0505 Solar Technology/Technician
15.0506 Water Quality and Wastewater Treatment Technology/Technician
15.0507 Environmental and Pollution Control Technology/Technician
15.0599 Environmental Control Technologies/Technicians, Other

15.06 Industrial Production Technologies

15.0603 Industrial/Manufacturing Technology/Technician
15.0607 Plastics Technology/Technician

15.0611 Metallurgical Technology/Technician
15.0699 Industrial Production Technologies/Technicians, Other

15.07 Quality Control and Safety Technologies

15.0701 Occupational Safety and Health Technology/Technician
15.0702 Quality Control Technology/Technician
15.0799 Quality Control and Safety Technologies/Technicians, Other

15.08 Mechanical Engineering-Related Technologies

15.0801 Aeronautical and Aerospace Engineering Technology/Technician
15.0803 Automotive Engineering Technology/Technician
15.0805 Mechanical Engineering/Mechanical Technology/Technician
15.0899 Mechanical Engineering-Related Technologies/Technicians, Other

15.09 Mining and Petroleum Technologies

15.0901 Mining Technology/Technician
15.0903 Petroleum Technology/Technician
15.0999 Mining and Petroleum Technologies/Technicians, Other

15.10 Construction/Building Technology

15.1001 Construction/Building Technology/Technician

15.11 Miscellaneous Engineering-Related Technologies

15.1101 Engineering-Related Technology/Technician, General
15.1102 Surveying
15.1103 Hydraulic Technology/Technician

15.99 Engineering-Related Technologies, Other

15.9999 Engineering-Related Technologies/Technicians, Other16. FOREIGN LANGUAGES AND LITERATURES

16.01 Foreign Languages and Literatures

16.0101 Foreign Languages and Literatures, General
16.0102 Linguistics
16.0103 Foreign Language Interpretation and Translation

16.03 East and Southeast Asian Languages and Literatures

16.0301 Chinese Language and Literature
16.0302 Japanese Language and Literature
16.0399 East and Southeast Asian Languages and Literatures, Other

16.04 East European Languages and Literatures

16.0402 Russian Language and Literature
16.0403 Slavic Languages and Literatures (Other Than Russian)
16.0499 East European Languages and Literatures, Other

16.05 Germanic Languages and Literatures

16.0501 German Language and Literature
16.0502 Scandinavian Languages and Literatures
16.0599 Germanic Languages and Literatures, Other

16.06 Greek Languages and Literatures (Modern)

16.0601 Greek Language and Literature (Modern)

16.07 South Asian Languages and Literatures

16.0703 South Asian Languages and Literatures

16.09 Romance Languages and Literatures

16.0901 French Language and Literature
16.0902 Italian Language and Literature
16.0904 Portuguese Language and Literature
16.0905 Spanish Language and Literature
16.0999 Romance Languages and Literatures, Other

16.11 Middle Eastern Languages and Literatures

16.1101 Arabic Language and Literature
16.1102 Hebrew Language and Literature
16.1199 Middle Eastern Languages and Literatures, Other

16.12 Classical and Ancient Near Eastern Languages and Literatures

16.1201 Classics and Classical Languages and Literatures
16.1202 Greek Language and Literature (Ancient and Medieval)
16.1203 Latin Language and Literature (Ancient and Medieval)
16.1299 Classical and Ancient Near Eastern Languages and Literatures, Other

16.99 Foreign Languages and Literatures, Other

16.9999 Foreign Languages and Literatures, Other

19. HOME ECONOMICS

19.01 Home Economics, General

19.0101 Home Economics, General

19.02 Home Economics Business Services

19.0201 Business Home Economics
19.0202 Home Economics Communications

19.03 Family and Community Studies

19.0301 Family and Community Studies

19.04 Family/Consumer Resource Management

19.0401 Family Resource Management Studies
19.0402 Consumer Economics and Science
19.0499 Family/Consumer Resource Management, Other

19.05 Foods and Nutrition Studies

19.0501 Foods and Nutrition Studies, General
19.0502 Foods and Nutrition Science
19.0503 Dietetics/Human Nutritional Services
19.0505 Food Systems Administration
19.0599 Foods and Nutrition Studies, Other

19.06 Housing Studies

19.0601 Housing Studies, General
19.0603 Interior Environments
19.0699 Housing Studies, Other

19.07 Individual and Family Development Studies

19.0701 Individual and Family Development Studies, General
19.0703 Family and Marriage Counseling
19.0704 Family Life and Relations Studies
19.0705 Gerontological Services
19.0706 Child Growth, Care and Development Studies
19.0799 Individual and Family Development Studies, Other

19.09 Clothing/Apparel and Textile Studies

19.0901 Clothing/Apparel and Textile Studies

19.99 Home Economics, Other

19.9999 Home Economics, Other

20. VOCATIONAL HOME ECONOMICS

20.02 Child Care and Guidance Workers and Managers

20.0201 Child Care and Guidance Workers and Managers, General
20.0202 Child Care Provider/Assistant
20.0203 Child Care Services Manager
20.0299 Child Care and Guidance Workers and Managers, Other

20.03 Clothing, Apparel and Textile Workers and Managers

20.0301 Clothing, Apparel and Textile Workers and Managers, General
20.0303 Commercial Garment and Apparel Worker
20.0305 Custom Tailor
20.0306 Fashion and Fabric Consultant
20.0309 Drycleaner and Launderer (Commercial)
20.0399 Clothing, Apparel and Textile Workers and Managers, Other

20.04 Institutional Food Workers and Administrators

20.0401 Institutional Food Workers and Administrators, General
20.0404 Dietician Assistant
20.0405 Food Caterer
20.0409 Institutional Food Services Administrator
20.0499 Institutional Food Workers and Administrators, Other

20.05 Home Furnishings and Equipment Installers and Consultants

20.0501 Home Furnishings and Equipment Installers and Consultants, General
20.0502 Window Treatment Maker and Installer
20.0599 Home Furnishings and Equipment Installers and Consultants, Other

20.06 Custodial, Housekeeping and Home Services Workers and Managers

20.0601 Custodial, Housekeeping and Home Services Workers and Managers, General
20.0602 Elder Care Provider/Companion
20.0604 Custodian/Caretaker
20.0605 Executive Housekeeper
20.0606 Homemaker's Aide
20.0699 Custodial, Housekeeping and Home Services Workers and Managers, Other

20.99 Vocational Home Economics, Other

20.9999 Vocational Home Economics, Other

22. LAW AND LEGAL STUDIES

22.01 Law and Legal Studies

22.0101 Law (LL.B., J.D.)
22.0102 Pre-Law Studies
22.0103 Paralegal/Legal Assistant
22.0104 Juridical Science/Legal Specialization(LL.M.,M.C.L.,J.S.D./S.J.D.)
22.0199 Law and Legal Studies, Other

23. ENGLISH LANGUAGE AND LITERATURE/LETTERS

23.01 English Language and Literature, General

23.0101 English Language and Literature, General

23.03 Comparative Literature

23.0301 Comparative Literature

23.04 English Composition

23.0401 English Composition

23.05 English Creative Writing

23.0501 English Creative Writing

23.07 American Literature (United States)

23.0701 American Literature (United States)

23.08 English Literature (British and Commonwealth)

23.0801 English Literature (British and Commonwealth)

23.10 Speech and Rhetorical Studies

23.1001 Speech and Rhetorical Studies

23.11 English Technical and Business Writing

23.1101 English Technical and Business Writing

23.99 English Language and Literature/Letters, Other

23.9999 English Language and Literature/Letters, Other

24. LIBERAL ARTS AND SCIENCES, GENERAL STUDIES AND HUMANITIES

24.01 Liberal Arts and Sciences, General Studies and Humanities

24.0101 Liberal Arts and Sciences/Liberal Studies
24.0102 General Studies
24.0103 Humanities/Humanistic Studies
24.0199 Liberal Art and Sciences, General Studies and Humanities, Other

25. LIBRARY SCIENCE

25.01 Library Science/Librarianship

25.0101 Library Science/Librarianship

25.03 Library Assistant

25.0301 Library Assistant

25.99 Library Science, Other

25.9999 Library Science, Other

26. BIOLOGICAL SCIENCES/LIFE SCIENCES

26.01 Biology, General

26.0101 Biology, General

26.02 Biochemistry and Biophysics

26.0202 Biochemistry
26.0203 Biophysics

26.03 Botany

26.0301 Botany, General
26.0305 Plant Pathology
26.0307 Plant Physiology

26.0399 Botany, Other

26.04 Cell and Molecular Biology

26.0401 Cell Biology
26.0402 Molecular Biology
26.0499 Cell and Molecular Biology, Other

26.05 Microbiology/Bacteriology

26.0501 Microbiology/Bacteriology

26.06 Miscellaneous Biological Specializations

26.0601 Anatomy
26.0603 Ecology
26.0607 Marine/Aquatic Biology
26.0608 Neuroscience
26.0609 Nutritional Sciences
26.0610 Parasitology
26.0611 Radiation Biology/Radiobiology
26.0612 Toxicology
26.0613 Genetics, Plant and Animal
26.0614 Biometrics
26.0615 Biostatistics
26.0616 Biotechnology Research
26.0617 Evolutionary Biology
26.0618 Biological Immunology
26.0619 Virology
26.0699 Miscellaneous Biological Specializations, Other

26.07 Zoology

26.0701 Zoology, General
26.0702 Entomology
26.0704 Pathology, Human and Animal
26.0705 Pharmacology, Human and Animal
26.0706 Physiology, Human and Animal
26.0799 Zoology, Other

26.99 Biological Sciences/Life Sciences, Other

26.9999 Biological Sciences/Life Sciences, Other

27. MATHEMATICS

27.01 Mathematics

27.0101 Mathematics

27.03 Applied Mathematics

27.0301 Applied Mathematics, General
27.0302 Operations Research
27.0399 Applied Mathematics, Other

27.05 Mathematical Statistics

27.0501 Mathematical Statistics

27.99 Mathematics, Other

27.9999 Mathematics, Other

29. MILITARY TECHNOLOGIES

29.01 Military Technologies

29.0101 Military Technologies

30. MULTI/INTERDISCIPLINARY STUDIES

30.01 Biological and Physical Sciences

30.0101 Biological and Physical Sciences

30.05 Peace and Conflict Studies

30.0501 Peace and Conflict Studies

30.06 Systems Science and Theory

30.0601 Systems Science and Theory

30.08 Mathematics and Computer Science

30.0801 Mathematics and Computer Science

30.10 Biopsychology

30.1001 Biopsychology

30.11 Gerontology

30.1101 Gerontology

30.12 Historic Preservation, Conservation and Architectural History

30.1201 Historic Preservation, Conservation and Architectural History

30.13 Medieval and Renaissance Studies

30.1301 Medieval and Renaissance Studies

30.14 Museology/Museum Studies

30.1401 Museology/Museum Studies

30.15 Science, Technology and Society

30.1501 Science, Technology and Society

30.99 Multi/Interdisciplinary Studies, Other

30.9999 Multi/Interdisciplinary Studies, Other

31. PARKS, RECREATION, LEISURE AND FITNESS STUDIES

31.01 Parks, Recreation and Leisure Studies

31.0101 Parks, Recreation and Leisure Studies

31.03 Parks, Recreation and Leisure Facilities Management

31.0301 Parks, Recreation and Leisure Facilities Management

31.05 Health and Physical Education/Fitness

31.0501 Health and Physical Education, General
31.0502 Adapted Physical Education/Therapeutic Recreation
31.0503 Athletic Training and Sports Medicine
31.0504 Sport and Fitness Administration/Management
31.0505 Exercise Sciences/Physiology and Movement Studies

31.0506 Socio-Psychological Sports Studies
31.0599 Health and Physical Education/Fitness, Other

31.99 Parks, Recreation, Leisure and Fitness Studies, Other

31.9999 Parks, Recreation, Leisure and Fitness Studies, Other

38. PHILOSOPHY AND RELIGION

38.01 Philosophy

38.0101 Philosophy

38.02 Religion/Religious Studies

38.0201 Religion/Religious Studies

38.99 Philosophy and Religion

38.9999 Philosophy and Religion

39. THEOLOGICAL STUDIES AND RELIGIOUS VOCATIONS

39.01 Biblical and Other Theological Languages and Literatures

39.0101 Biblical and Other Theological Languages and Literatures

39.02 Bible/Biblical Studies

39.0201 Bible/Biblical Studies

39.03 Missions/Missionary Studies and Misology

39.0301 Missions/Missionary Studies and Misology

39.04 Religious Education

39.0401 Religious Education

39.05 Religious/Sacred Music

39.0501 Religious/Sacred Music

39.06 Theological and Ministerial Studies

39.0601 Theology/Theological Studies
39.0602 Divinity/Ministry (B.D., M.Div.)
39.0603 Rabbinical and Talmudic Studies (M.H.L./Rav)
39.0604 Pre-Theological/Pre-Ministerial Studies
39.0699 Theological and Ministerial Studies, Other

39.07 Pastoral Counseling and Specialized Ministries

39.0701 Pastoral Counseling and Specialized Ministries

39.99 Theological Studies and Religious Vocations, Other

39.9999 Theological Studies and Religious Vocations, Other

40. PHYSICAL SCIENCES

40.01 Physical Sciences, General

40.0101 Physical Sciences, General

40.02 Astronomy

40.0201 Astronomy

40.03 Astrophysics

40.0301 Astrophysics

40.04 Atmospheric Sciences and Meteorology

40.0401 Atmospheric Sciences and Meteorology

40.05 Chemistry

40.0501 Chemistry, General
40.0502 Analytical Chemistry
40.0503 Inorganic Chemistry
40.0504 Organic Chemistry
40.0505 Medicinal/Pharmaceutical Chemistry
40.0506 Physical and Theoretical Chemistry
40.0507 Polymer Chemistry
40.0599 Chemistry, Other

40.06 Geological and Related Sciences

40.0601 Geology
40.0602 Geochemistry
40.0603 Geophysics and Seismology
40.0604 Paleontology
40.0699 Geological and Related Sciences, Other

40.07 Miscellaneous Physical Sciences

40.0701 Metallurgy
40.0702 Oceanography
40.0703 Earth and Planetary Sciences
40.0799 Miscellaneous Physical Sciences, Other

40.08 Physics

40.0801 Physics, General
40.0802 Chemical and Atomic/Molecular Physics
40.0804 Elementary Particle Physics
40.0805 Plasma and High-Temperature Physics
40.0806 Nuclear Physics
40.0807 Optics
40.0808 Solid state and Low-Temperature Physics
40.0809 Acoustics
40.0810 Theoretical and Mathematical Physics
40.0899 Physics, Other

40.99 Physical Sciences, Other

40.9999 Physical Sciences, Other

41. SCIENCE TECHNOLOGIES

41.01 Biological Technology

41.0101 Biological Technology/Technician

41.02 Nuclear and Industrial Radiologic Technologies

41.0204 Industrial Radiologic Technology/Technician
41.0205 Nuclear/Nuclear Power Technology/Technician
41.0299 Nuclear and Industrial Radiologic Technologies/Technicians, Other

41.03 Physical Science Technologies

41.0301 Chemical Technology/Technician
41.0399 Physical Science Technologies/Technicians, Other

41.99 Science Technologies, Other

41.9999 Science Technologies/Technicians, Other

42. PSYCHOLOGY

42.01 Psychology

42.0101 Psychology, General

42.02 Clinical Psychology

42.0201 Clinical Psychology

42.03 Cognitive Psychology and Psycholinguistics

42.0301 Cognitive Psychology and Psycholinguistics

42.04 Community Psychology

42.0401 Community Psychology

42.06 Counseling Psychology

42.0601 Counseling Psychology

42.07 Developmental and Child Psychology

42.0701 Developmental and Child Psychology

42.08 Experimental Psychology

42.0801 Experimental Psychology

42.09 Industrial and Organizational Psychology

42.0901 Industrial and Organizational Psychology

42.11 Physiological Psychology/Psychobiology

42.1101 Physiological Psychology/Psychobiology

42.16 Social Psychology

42.1601 Social Psychology

42.17 School Psychology

42.1701 School Psychology

42.99 Psychology, Other

42.9999 Psychology, Other

43. PROTECTIVE SERVICES

43.01 Criminal Justice and Corrections

43.0102 Corrections/Correctional Administration
43.0103 Criminal Justice/Law Enforcement Administration
43.0104 Criminal Justice Studies
43.0106 Forensic Technology/Technician
43.0107 Law Enforcement/Police Science
43.0109 Security and Loss Prevention Services
43.0199 Criminal Justice and Corrections, Other

43.02 Fire Protection

43.0201 Fire Protection and Safety Technology/Technician
43.0202 Fire Services Administration
43.0203 Fire Science/Firefighting
43.0299 Fire Protection, Other

43.99 Protective Services, Other

43.9999 Protective Services, Other

44. PUBLIC ADMINISTRATION AND SERVICES

44.02 Community Organization, Resources and Services

44.0201 Community Organization, Resources and Services

44.04 Public Administration

44.0401 Public Administration

44.05 Public Policy Analysis

44.0501 Public Policy Analysis

44.07 Social Work

44.0701 Social Work

44.99 Public Administration and Services, Other

44.9999 Public Administration and Services, Other

45. SOCIAL SCIENCES AND HISTORY

45.01 Social Sciences, General

45.0101 Social Sciences, General

45.02 Anthropology

45.0201 Anthropology

45.03 Archeology

45.0301 Archeology

45.04 Criminology

45.0401 Criminology

45.05 Demography/Population Studies

45.0501 Demography/Population Studies

45.06 Economics

45.0601 Economics, General
45.0602 Applied and Resource Economics
45.0603 Econometrics and Quantitative Economics
45.0604 Development Economics and International Development
45.0605 International Economics
45.0699 Economics, Other

45.07 Geography

45.0701 Geography

45.0702 Cartography

45.08 History

45.0801 History, General
45.0802 American (United States) History
45.0803 European History
45.0804 History and Philosophy of Science and Technology
45.0805 Public/Applied History and Archival Administration
45.0899 History, Other

45.09 International Relations and Affairs

45.0901 International Relations and Affairs

45.10 Political Science and Government

45.1001 Political Science, General
45.1002 American Government and Politics
45.1099 Political Science and Government, Other

45.11 Sociology

45.1101 Sociology

45.12 Urban Affairs/Studies

45.1201 Urban Affairs/Studies

45.99 Social Sciences and History, Other

45.9999 Social Sciences and History, Other

46. CONSTRUCTION TRADES

46.01 Masons and Tile Setters

46.0101 Mason and Tile Setter

46.02 Carpenters

46.0201 Carpenter

46.03 Electrical and Power Transmission Installers

46.0301 Electrical and Power Transmission Installer, General

46.0302 Electrician
46.0303 Lineworker
46.0399 Electrical and Power Transmission Installer, Other

46.04 Construction and Building Finishers and Managers

46.0401 Building/Property Maintenance and Manager
46.0403 Construction/Building Inspector
46.0408 Painter and Wall Coverer
46.0499 Construction and Building Finishers and Managers, Other

46.05 Plumbers and Pipefitters

46.0501 Plumber and Pipefitter

46.99 Construction Trades, Other

46.9999 Construction Trades, Other

47. MECHANICS AND REPAIRERS

47.01 Electrical and Electronics Equipment Installers and Repairers

47.0101 Electrical and Electronics Equipment Installer and Repairer, General
47.0102 Business Machine Repairer
47.0103 Communication Systems Installer and Repairer
47.0104 Computer Installer and Repairer
47.0105 Industrial Electronics Installer and Repairer
47.0106 Major Appliance Installer and Repairer
47.0199 Electrical and Electronics Equipment Installer and Repairer, Other

47.02 Heating, Air Conditioning and Refrigeration Mechanics and Repairers

47.0201 Heating, Air Conditioning and Refrigeration Mechanic and Repairer

47.03 Industrial Equipment Maintenance and Repairers

47.0302 Heavy Equipment Maintenance and Repairer
47.0303 Industrial Machinery Maintenance and Repairer
47.0399 Industrial Equipment Maintenance and Repairers, Other

47.04 Miscellaneous Mechanics and Repairers

47.0401 Instrument Calibration and Repairer
47.0402 Gunsmith
47.0403 Locksmith and Safe Repairer
47.0404 Musical Instrument Repairer

47.0408 Watch, Clock and Jewelry Repairer
47.0499 Miscellaneous Mechanics and Repairers, Other

47.05 Stationary Energy Sources Installers and Operators

47.0501 Stationary Energy Sources Installer and Operator

47.06 Vehicle and Mobile Equipment Mechanics and Repairers

47.0603 Auto/Automotive Body Repairer
47.0604 Auto/Automotive Mechanic/Technician
47.0605 Diesel Engine Mechanic and Repairer
47.0606 Small Engine Mechanic and Repairer
47.0607 Aircraft Mechanic/Technician, Airframe
47.0608 Aircraft Mechanic/Technician, Powerplant
47.0609 Aviation Systems and Avionics Maintenance Technologist/Technician
47.0610 Bicycle Mechanic and Repairer
47.0611 Motorcycle Mechanic and Repairer
47.0699 Vehicle and Mobile Equipment Mechanics and Repairers, Other

47.99 Mechanics and Repairers, Other

47.9999 Mechanics and Repairers, Other

48. PRECISION PRODUCTION TRADES

48.01 Drafting

48.0101 Drafting, General
48.0102 Architectural Drafting
48.0103 Civil/Structural Drafting
48.0104 Electrical/Electronics Drafting
48.0105 Mechanical Drafting
48.0199 Drafting, Other

48.02 Graphic and Printing Equipment Operators

48.0201 Graphic and Printing Equipment Operator, General
48.0205 Mechanical Typesetter and Composer
48.0206 Lithographer and Platemaker
48.0208 Printing Press Operator
48.0211 Computer Typography and Composition Equipment Operator
48.0212 Desktop Publishing Equipment Operator
48.0299 Graphic and Printing Equipment Operators, Other

48.03 Leatherworkers and Upholsterers

48.0303 Upholsterer

48.0304 Shoe, Boot and Leather Repairer
48.0399 Leatherworkers and Upholsterers, Other

48.05 **Precision Metal Workers**

48.0501 Machinist/Machine Technologist
48.0503 Machine Shop Assistant
48.0506 Sheet Metal Worker
48.0507 Tool and Die Maker/Technologist
48.0508 Welder/Welding Technologist
48.0599 Precision Metal Workers, Other

48.07 **Woodworkers**

48.0701 Woodworkers, General
48.0702 Furniture Designer and Maker
48.0703 Cabinet Maker and Millworker
48.0799 Woodworkers, Other

48.99 **Precision Production Trades, Other**

48.9999 Precision Production Trades, Other

49. TRANSPORTATION AND MATERIALS MOVING WORKERS

49.01 **Air Transportation Workers**

49.0101 Aviation and Airway Science
49.0102 Aircraft Pilot and Navigator (Professional)
49.0104 Aviation Management
49.0105 Air Traffic Controller
49.0106 Flight Attendant
49.0107 Aircraft Pilot (Private)
49.0199 Air Transportation Workers, Other

49.02 **Vehicle and Equipment Operators**

49.0202 Construction Equipment Operator
49.0205 Truck, Bus and Other Commercial Vehicle Operator
49.0299 Vehicle and Equipment Operators, Other

49.03 **Water Transportation Workers**

49.0303 Fishing Technology/Commercial Fishing
49.0304 Diver (Professional)
49.0306 Marine Maintenance and Ship Repairer
49.0309 Marine Science/Merchant Marine Officer

49.0399 Water Transportation Workers, Other

49.99 Transportation and Materials Moving Workers, Other

49.9999 Transportation and Materials Moving Workers, Other

50. VISUAL AND PERFORMING ARTS

50.01 Visual and Performing Arts

50.0101 Visual and Performing Arts

50.02 Crafts, Folk Art and Artisanry

50.0201 Crafts, Folk Art and Artisanry

50.03 Dance

50.0301 Dance

50.04 Design and Applied Arts

50.0401 Design and Visual Communications
50.0402 Graphic Design, Commercial Art and Illustration
50.0404 Industrial Design
50.0406 Commercial Photography
50.0407 Fashion Design and Illustration
50.0408 Interior Design
50.0499 Design and Applied Arts, Other

50.05 Dramatic/Theater Arts and Stagecraft

50.0501 Drama/Theater Arts, General
50.0502 Technical Theater/Theater Design and Stagecraft
50.0503 Acting and Directing
50.0504 Playwriting and Screenwriting
50.0505 Drama/Theater Literature, History and Criticism
50.0599 Dramatic/Theater Arts and Stagecraft, Other

50.06 Film/Video and Photographic Arts

50.0601 Film/Cinema Studies
50.0602 Film-Video Making/Cinematography and Production
50.0605 Photography
50.0699 Film/Video and Photographic Arts, Other

50.07 Fine Arts and Art Studies

50.0701 Art, General
50.0702 Fine/Studio Arts
50.0703 Art History, Criticism and Conservation
50.0704 Arts Management
50.0705 Drawing
50.0706 Intermedia
50.0708 Painting
50.0709 Sculpture
50.0710 Printmaking
50.0711 Ceramics Arts and Ceramics
50.0712 Fiber, Textile and Weaving Arts
50.0713 Metal and Jewelry Arts
50.0799 Fine Arts and Art Studies, Other

50.09 Music

50.0901 Music, General
50.0902 Music History and Literature
50.0903 Music -- General Performance
50.0904 Music Theory and Composition
50.0905 Musicology and Ethnomusicology
50.0906 Music Conducting
50.0907 Music -- Piano and Organ Performance
50.0908 Music -- Voice and Choral/Opera Performance
50.0909 Music Business Management and Merchandising
50.0999 Music, Other

50.99 Visual and Performing Arts, Other

50.9999 Visual and Performing Arts, Other

51. HEALTH PROFESSIONS AND RELATED SCIENCES

51.01 Chiropractic (D.C., D.C.M.)

51.0101 Chiropractic (D.C., D.C.M.)

51.02 Communication Disorders Sciences and Services

51.0201 Communication Disorders, General
51.0202 Audiology/Hearing Sciences
51.0203 Speech-Language Pathology
51.0204 Speech-Language Pathology and Audiology
51.0205 Sign Language Interpreter
51.0299 Communication Disorders Sciences and Services, Other

51.03 Community Health Services

51.0301 Community Health Liaison

51.04 Dentistry (D.D.S., D.M.D.)

51.0401 Dentistry (D.D.S., D.M.D.)

51.05 Dental Clinical Sciences/Graduate Dentistry (M.S., Ph.D.)

51.0501 Dental Clinical Sciences/Graduate Dentistry (M.S., Ph.D.)

51.06 Dental Services

51.0601 Dental Assistant
51.0602 Dental Hygienist
51.0603 Dental Laboratory Technician
51.0699 Dental Services, Other

51.07 Health and Medical Administrative Services

51.0701 Health System/Health Services Administration
51.0702 Hospital/Health Facilities Administration
51.0703 Health Unit Coordinator/Ward Clerk
51.0704 Health Unit Manager/Ward Supervisor
51.0705 Medical Office Management
51.0706 Medical Records Administration
51.0707 Medical Records Technology/Technician
51.0708 Medical Transcription
51.0799 Health and Medical Administrative Services, Other

51.08 Health and Medical Assistants

51.0801 Medical Assistant
51.0802 Medical Laboratory Assistant
51.0803 Occupational Therapy Assistant
51.0804 Ophthalmic Medical Assistant
51.0805 Pharmacy Technician/Assistant
51.0806 Physical Therapy Assistant
51.0807 Physician Assistant
51.0808 Veterinarian Assistant/Animal Health Technician
51.0899 Health and Medical Assistants, Other

51.09 Health and Medical Diagnostic and Treatment Services

51.0901 Cardiovascular Technology/Technician
51.0902 Electrocardiograph Technology/Technician
51.0903 Electroencephalograph Technology/Technician
51.0904 Emergency Medical Technology/Technician
51.0905 Nuclear Medical Technology/Technician

51.0906 Perfusion Technology/Technician
51.0907 Medical Radiologic Technology/Technician
51.0908 Respiratory Therapy Technician
51.0909 Surgical/Operating Room Technician
51.0910 Diagnostic Medical Sonography
51.0999 Health and Medical Diagnostic and Treatment Services, Other

51.10 **Health and Medical Laboratory Technologies/Technicians**

51.1001 Blood Bank Technology/Technician
51.1002 Cytotechnologist
51.1003 Hematology Technology/Technician
51.1004 Medical Laboratory Technician
51.1005 Medical Technology
51.1006 Optometric/Ophthalmic Laboratory Technician
51.1099 Health and Medical Laboratory Technologies/Technicians, Other

51.11 **Health and Medical Preparatory Programs**

51.1101 Pre-Dentistry Studies
51.1102 Pre-Medicine Studies
51.1103 Pre-Pharmacy Studies
51.1104 Pre-Veterinary Studies
51.1199 Health and Medical Preparatory Programs, Other

51.1201 **Medicine (M.D.)**

51.1201 Medicine (M.D.)

51.13 **Medical Basic Sciences**

51.1301 Medical Anatomy
51.1302 Medical Biochemistry
51.1303 Medical Biomathematics and Biometrics
51.1304 Medical Physics/Biophysics
51.1305 Medical Cell Biology
51.1306 Medical Genetics
51.1307 Medical Immunology
51.1308 Medical Microbiology
51.1309 Medical Molecular Biology
51.1310 Medical Neurobiology
51.1311 Medical Nutrition
51.1312 Medical Pathology
51.1313 Medical Physiology
51.1314 Medical Toxicology
51.1399 Medical Basic Sciences, Other

51.14 **Medical Clinical Sciences (M.S., Ph.D.)**

51.1401 Medical Clinical Sciences (M.S., Ph.D.)

51.15 **Mental Health Services**

51.1501 Alcohol/Drug Abuse Counseling
51.1502 Psychiatric/Mental Health Services Technician
51.1503 Clinical and Medical Social Work
51.1599 Mental Health Services, Other

51.16 **Nursing**

51.1601 Nursing (R.N. Training)
51.1602 Nursing Administration (Post-R.N.)
51.1603 Nursing, Adult Health (Post-R.N.)
51.1604 Nursing Anesthetist (Post-R.N.)
51.1605 Nursing, Family Practice (Post-R.N.)
51.1606 Nursing, Maternal/Child Health (Post-R.N.)
51.1607 Nursing Midwifery (Post-R.N.)
51.1608 Nursing Science (Post-R.N.)
51.1609 Nursing, Pediatric (Post-R.N.)
51.1610 Nursing, Psychiatric/Mental Health (Post-R.N.)
51.1611 Nursing, Public Health (Post-R.N.)
51.1612 Nursing, Surgical (Post-R.N.)
51.1613 Practical Nurse (L.P.N. Training)
51.1614 Nurse Assistant/Aide
51.1615 Home Health Aide
51.1699 Nursing, Other

51.17 **Optometry (O.D.)**

51.1701 Optometry (O.D.)

51.18 **Ophthalmic/Optometric Services**

51.1801 Opticianry/Dispensing Optician
51.1802 Optical Technician/Assistant
51.1803 Ophthalmic Medical Technologist
51.1804 Orthoptics
51.1899 Ophthalmic/Optometric Services, Other

51.19 **Osteopathic Medicine (D.O.)**

51.1901 Osteopathic Medicine (D.O.)

51.20 **Pharmacy**

51.2001 Pharmacy (B. Pharm., Pharm.D.)
51.2002 Pharmacy Administration and Pharmaceutics
51.2003 Medical Pharmacology and Pharmaceutical Sciences
51.2099 Pharmacy, Other

51.21 Podiatry (D.P.M., D.P., Pod.D.)

51.2101 Podiatry (D.P.M., D.P., Pod.D.)

51.22 Public Health

51.2201 Public Health, General
51.2202 Environmental Health
51.2203 Epidemiology
51.2204 Health and Medical Biostatistics
51.2205 Health Physics/Radiologic Health
51.2206 Occupational Health and Industrial Hygiene
51.2207 Public Health Education and Promotion
51.2299 Public Health, Other

51.23 Rehabilitation/Therapeutic Services

51.2301 Art Therapy
51.2302 Dance Therapy
51.2303 Hypnotherapy
51.2304 Movement Therapy
51.2305 Music Therapy
51.2306 Occupational Therapy
51.2307 Orthotics/Prosthetics
51.2308 Physical Therapy
51.2309 Recreational Therapy
51.2310 Vocational Rehabilitation Counseling
51.2399 Rehabilitation/Therapeutic Services, Other

51.24 Veterinary Medicine (D.V.M.)

51.2401 Veterinary Medicine (D.V.M.)

51.25 Veterinary Clinical Sciences (M.S., Ph.D.)

51.2501 Veterinary Clinical Sciences (M.S., Ph.D.)

51.26 Miscellaneous Health Aides

51.2601 Health Aide

51.27 Miscellaneous Health Professions

51.2701 Acupuncture and Oriental Medicine
51.2702 Medical Dietician
51.2703 Medical Illustrating
51.2704 Naturopathic Medicine
51.2705 Psychoanalysis

51.99 Health Professions and Related Sciences, Other

51.9999 Health Professions and Related Sciences, Other

52. BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES

52.01 Business

52.0101 Business, General

52.02 Business Administration and Management

52.0201 Business Administration and Management, General
52.0202 Purchasing, Procurement and Contracts Management
52.0203 Logistics and Materials Management
52.0204 Office Supervision and Management
52.0205 Operations Management and Supervision
52.0206 Nonprofit and Public Management
52.0299 Business Administration and Management, Other

52.03 Accounting

52.0301 Accounting
52.0302 Accounting Technician
52.0399 Accounting, Other

52.04 Administrative and Secretarial Services

52.0401 Administrative Assistant/Secretarial Science, General
52.0402 Executive Assistant/Secretary
52.0403 Legal Administrative Assistant/Secretary
52.0404 Medical Administrative Assistant/Secretary
52.0405 Court Reporter
52.0406 Receptionist
52.0407 Information Processing/Data Entry Technician
52.0408 General Office/Clerical and Typing Services
52.0499 Administrative and Secretarial Services, Other

52.05 Business Communications

52.0501 Business Communications

52.06 Business/Managerial Economics

52.0601 Business/Managerial Economics

52.07 Enterprise Management and Operation

52.0701 Enterprise Management and Operation, General
52.0702 Franchise Operation
52.0799 Enterprise Management and Operation, Other

52.08 Financial Management and Services

52.0801 Finance, General
52.0802 Actuarial Science
52.0803 Banking and Financial Support Services
52.0804 Financial Planning
52.0805 Insurance and Risk Management
52.0806 International Finance
52.0807 Investments and Securities
52.0808 Public Finance
52.0899 Financial Management and Services, Other

52.09 Hospitality Services Management

52.0901 Hospitality/Administration Management
52.0902 Hotel/Motel and Restaurant Management
52.0903 Travel-Tourism Management
52.0999 Hospitality Services Management, Other

52.10 Human Resources Management

52.1001 Human Resources Management
52.1002 Labor/Personnel Relations and Studies
52.1003 Organizational Behavior Studies
52.1099 Human Resources Management, Other

52.11 International Business

52.1101 International Business

52.12 Business Information and Data Processing Services

52.1201 Management Information Systems and Business Data Processing, General
52.1202 Business Computer Programming/Programmer
52.1203 Business Systems Analysis and Design
52.1204 Business Systems Networking and Telecommunications
52.1205 Business Computer Facilities Operator
52.1299 Business Information and Data Processing Services, Other

52.13 Business Quantitative Methods and Management Science

52.1301 Management Science
52.1302 Business Statistics
52.1399 Business Quantitative Methods and Management Science, Other

52.14 Marketing Management and Research

- 52.1401 Business Marketing and Marketing Management
- 52.1402 Marketing Research
- 52.1403 International Business Marketing
- 52.1499 Marketing Management and Research, Other

52.15 Real Estate

- 52.1501 Real Estate

52.16 Taxation

- 52.1601 Taxation

52.99 Business Management and Administrative Services, Other

- 52.9999 Business Management and Administrative Services, Other

CHAPTER II

CONSUMER AND HOMEMAKING EDUCATION PROGRAMS

20.01 Consumer and Homemaking Education

- 20.0101 Comprehensive Consumer and Homemaking Education
- 20.0102 Child Development, Care and Guidance
- 20.0103 Clothing and Textiles
- 20.0104 Consumer Education
- 20.0105 Exploratory Homemaking
- 20.0106 Family/Individual Health
- 20.0107 Family Living and Parenthood
- 20.0108 Food and Nutrition
- 20.0109 Home Management
- 20.0110 Housing, Home Furnishings, and Equipment
- 20.0199 Consumer and Homemaking Education, Other

CHAPTER III

TECHNOLOGY EDUCATION/INDUSTRIAL ARTS PROGRAMS

21. TECHNOLOGY EDUCATION/INDUSTRIAL ARTS

21.01 Technology Education/Industrial Arts

- 21.0101 Technology Education/Industrial Arts

CHAPTER IV

RESERVE OFFICERS' TRAINING CORPS PROGRAMS

28. RESERVE OFFICERS' TRAINING CORPS (R.O.T.C.)

28.01 **Air Force R.O.T.C.**

- 28.0101 Air Force R.O.T.C./Air Science

28.03 **Army R.O.T.C.**

- 28.0301 Army R.O.T.C./Military Science

28.04 **Navy/Marine Corps R.O.T.C.**

- 28.0401 Navy/Marine Corps R.O.T.C./Naval Science

CHAPTER V

PERSONAL IMPROVEMENT AND LEISURE PROGRAMS

32. BASIC SKILLS

32.01 **Basic Skills**

- 32.0101 Basic Skills, General
- 32.0104 Computational Skills
- 32.0105 Job Seeking/Changing Skills
- 32.0107 Career Exploration/Awareness Skills
- 32.0108 Reading, Literacy and Communication Skills
- 32.0199 Basic Skills, Other

33. CITIZENSHIP ACTIVITIES

33.01 **Citizenship Activities**

- 33.0101 Citizenship Activities, General
- 33.0102 American Citizenship Education
- 33.0103 Community Awareness
- 33.0104 Community Involvement
- 33.0199 Citizenship Activities, Other

34. HEALTH-RELATED KNOWLEDGE AND SKILLS

34.01 Health-Related Knowledge and Skills

34.0102 Birthing and Parenting Knowledge and Skills
34.0103 Personal Health Improvement and Maintenance
34.0104 Addiction Prevention and Treatment
34.0199 Health-Related Knowledge and Skills, Other

35. INTERPERSONAL AND SOCIAL SKILLS

35.01 Interpersonal and Social Skills

35.0101 Interpersonal and Social Skills, General
35.0102 Interpersonal Relationships Skills
35.0103 Business and Social Skills
35.0199 Interpersonal and Social Skills, Other

36. LEISURE AND RECREATIONAL ACTIVITIES

36.01 Leisure and Recreational Activities

36.0101 Leisure and Recreational Activities, General
36.0102 Handicrafts and Model-Making
36.0103 Board, Card and Role-Playing Games
36.0105 Home Maintenance and Improvement
36.0106 Nature Appreciation
36.0107 Pet Ownership and Care
36.0108 Sports and Exercise
36.0109 Travel and Exploration
36.0110 Art
36.0111 Collecting
36.0112 Cooking and Other Domestic Skills
36.0113 Computer Games and Programming Skills
36.0114 Dancing
36.0115 Music
36.0116 Reading
36.0117 Theater
36.0118 Writing
36.0199 Leisure and Recreational Activities, Other

37. PERSONAL AWARENESS AND SELF-IMPROVEMENT

37.01 Personal Awareness and Self-Improvement

37.0101 Self-Awareness and Personal Assessment

37.0102 Stress Management and Coping Skills
37.0103 Personal Decision-Making Skills
37.0104 Self-Esteem and Values Clarification
37.0199 Personal Awareness and Self-Improvement, Other

CHAPTER VI

DENTAL, MEDICAL AND VETERINARY RESIDENCY PROGRAMS

51.28 **Dental Residency Programs**

51.2801 Dental/Oral Surgery Specialty
51.2802 Dental Public Health Specialty
51.2803 Endodontics Specialty
51.2804 Oral Pathology Specialty
51.2805 Orthodontics Specialty
51.2806 Pedodontics Specialty
51.2807 Periodontics Specialty
51.2808 Prosthodontics Specialty
51.2899 Dental Residency Programs, Other

51.29 **Medical Residency Programs**

51.2901 Aerospace Medicine Residency
51.2902 Allergies and Immunology Residency
51.2903 Anesthesiology Residency
51.2904 Blood Banking Residency
51.2905 Cardiology Residency
51.2906 Chemical Pathology Residency
51.2907 Child/Pediatric Neurology Residency
51.2908 Child Psychiatry Residency
51.2909 Colon and Rectal Surgery Residency
51.2910 Critical Care Anesthesiology Residency
51.2911 Critical Care Medicine Residency
51.2912 Critical Care Surgery Residency
51.2913 Dermatology Residency
51.2914 Dermatopathology Residency
51.2915 Diagnostic Radiology Residency
51.2916 Emergency Medicine Residency
51.2917 Endocrinology and Metabolism Residency
51.2918 Family Medicine Residency
51.2919 Forensic Pathology Residency
51.2920 Gastroenterology Residency
51.2921 General Surgery Residency
51.2922 Geriatric Medicine Residency
51.2923 Hand Surgery Residency
51.2924 Hematology Residency
51.2925 Hematological Pathology Residency
51.2926 Immunopathology Residency
51.2927 Infectious Disease Residency
51.2928 Internal Medicine Residency
51.2929 Laboratory Medicine Residency

51.2930 Musculoskeletal Oncology Residency
51.2931 Neonatal-Perinatal Medicine Residency
51.2932 Nephrology Residency
51.2933 Neurological Surgery/Neurosurgery Residency
51.2934 Neurology Residency
51.2935 Neuropathology Residency
51.2936 Nuclear Medicine Residency
51.2937 Nuclear Radiology Residency
51.2938 Obstetrics and Gynecology Residency
51.2939 Occupational Medicine Residency
51.2940 Oncology Residency
51.2941 Ophthalmology Residency
51.2942 Orthopedics/Orthopedic Surgery Residency
51.2943 Otolaryngology Residency
51.2944 Pathology Residency
51.2945 Pediatric Cardiology Residency
51.2946 Pediatric Endocrinology Residency
51.2947 Pediatric Hemato-Oncology Residency
51.2948 Pediatric Nephrology Residency
51.2949 Pediatric Orthopedics Residency
51.2950 Pediatric Surgery Residency
51.2951 Pediatrics Residency
51.2952 Physical and Rehabilitation Medicine Residency
51.2953 Plastic Surgery Residency
51.2954 Preventive Medicine Residency
51.2955 Psychiatry Residency
51.2956 Public Health Medicine Residency
51.2957 Pulmonary Disease Residency
51.2958 Radiation Oncology Residency
51.2959 Radioisotopic Pathology Residency
51.2960 Rheumatology Residency
51.2961 Sports Medicine Residency
51.2962 Thoracic Surgery Residency
51.2963 Urology Residency
51.2964 Vascular Surgery Residency
51.2999 Medical Residency Programs, Other

51.30 Veterinary Residency Programs

51.3001 Veterinary Anesthesiology
51.3002 Veterinary Dentistry
51.3003 Veterinary Dermatology
51.3004 Veterinary Emergency and Critical Care Medicine
51.3005 Veterinary Internal Medicine
51.3006 Laboratory Animal Medicine
51.3007 Veterinary Microbiology
51.3008 Veterinary Nutrition
51.3009 Veterinary Ophthalmology
51.3010 Veterinary Pathology
51.3011 Veterinary Practice
51.3012 Veterinary Preventive Medicine
51.3013 Veterinary Radiology
51.3014 Veterinary Surgery
51.3015 Theriogenology

51.3016 Veterinary Toxicology
51.3017 Zoological Medicine
51.3099 Veterinary Residency Programs, Other

CHAPTER VII

HIGH SCHOOL/SECONDARY DIPLOMA AND CERTIFICATE PROGRAMS

53. HIGH SCHOOL/SECONDARY DIPLOMAS AND CERTIFICATES

53.01 High School/Secondary Diplomas

53.0101 Regular High School Diploma
53.0102 College Preparatory High School Diploma
53.0103 Vocational High School Diploma
53.0104 Honors/Regents High School Diploma
53.0199 High School/Secondary Diplomas, Other

53.02 High School/Secondary Certificates

53.0201 High School Equivalence Certificate
53.0202 High School Certificate of Competence
53.0203 Certificate of IEP Completion
53.0299 High School Certificates, Other

INSTRUCTIONAL PROGRAM CODES, TITLES, AND DESCRIPTIONS - 1990

CHAPTER I

ACADEMIC AND OCCUPATIONALLY SPECIFIC PROGRAMS

The Series in this Chapter refer to instructional programs that are offered in specific fields of study at the secondary and postsecondary levels. All of the programs described in this Chapter are offered for full academic credit and lead to specific awards, including degrees, diplomas and certificates.

01. **AGRICULTURAL BUSINESS AND PRODUCTION.** A summary of groups of instructional programs that prepare individuals to apply scientific knowledge and methods, and techniques to agricultural business and production.

01.01 **Agricultural Business and Management.** A group of instructional programs (see 01.0101)

----- **Business Administration and Management.** (refer to 52.02 Series)

* 01.0101 **Agricultural Business and Management, General.** An instructional program that generally prepares individuals to apply modern economic and business principles involved in the organization, operation and management of farm and agricultural businesses.

* 01.0102 **Agricultural Business/Agribusiness Operations.** An instructional program that prepares individuals to apply modern business and economic principles relating to the production and marketing of agricultural products and services.

01.0103 **Agricultural Economics.** An instructional program that describes modern business and economic principles relating to the allocation of resources in the production and marketing of agricultural products and services in the domestic and international markets.

------- **Economics.** (refer to 45.06 Series)

* 01.0104 **Farm and Ranch Management.** An instructional program that prepares individuals to manage a farm or ranch. Includes instruction in computer-assisted management analysis, accounting, taxes, production, financing, capital resources, purchasing, government programs, farm inputs, performance records, contracts, estate planning and marketing.

* 01.0199 **Agricultural Business and Management, Other.** Any instructional program in agricultural business and management not described above.

01.02 **Agricultural Mechanization.** A group of instructional programs (see 01.0201)

* 01.0201 **Agricultural Mechanization, General.** An instructional program that prepares individuals in a general way to sell, select and service agriculture or agribusiness technical equipment and facilities, including computers, specialized software, power units, machinery, equipment, structures and utilities. Includes instruction in agricultural power units; the planning and selection of materials for the construction of agricultural facilities; the mechanical practices associated with irrigation and water conservation; erosion control; and data processing systems.

------- [Agricultural Electrification, Power, and Controls.] (deleted, included under 01.0299)

NOTE: The use of an asterisk (*) denotes a code which has historically been used for reporting sub-baccalaureate occupationally specific program data related to Federal vocational education legislation. Codes so marked are not restricted to such uses, however, and may also be used for reporting data on programs offered at other levels. See Appendix F for a definition of the term "occupationally specific."

	-------	[Agricultural Mechanics, Construction and Maintenance Skills.] (deleted, included under 01.0299)
*	01.0204	**Agricultural Power Machinery Operator.** An instructional program that prepares individuals to install, operate, service, maintain, and repair various agricultural power units, vehicles, machinery and equipment. Includes instruction in gas, diesel, and electric power units; welding; refrigeration; and hydraulic systems.
	-------	[Agricultural Structures, Equipment, and Facilities.] (deleted, included under 01.0201)
	-------	[Soil and Water Mechanical Practices.] (deleted, included under 01.0299)
*	01.0299	**Agricultural Mechanization, Other.** Any instructional program in agricultural mechanization not described above.
01.03	**Agricultural Production/Workers and Managers.** A group of instructional programs (see 01.0301)	
*	01.0301	**Agricultural Production Workers and Managers, General.** An instructional program that generally prepares individuals to plan and economically use facilities, natural resources, labor and capital in the production of plant and animal products.
*	01.0302	**Agricultural Animal Husbandry and Production Management.** An instructional program that prepares individuals to select, breed, care for and market livestock and small farm animals. Includes instruction in the operation of animal production enterprises.
*	01.0303	**Aquaculture Operations and Production Management.** An instructional program that prepares individuals to select, culture, propagate, harvest and market domesticated fish, shellfish and marine plants. Includes instruction in the operation of fish farms and related enterprises.
	------	**Fishing and Fisheries Management and Sciences.** (refer to 03.0301)
*	01.0304	**Crop Production Operations and Management.** An instructional program that prepares individuals to operate enterprises producing cereal grain, fiber, forage, oilseed, tree fruits and nuts, small fruits, vegetables and other plant products. Includes instruction in soils, plant nutrition, plant diseases, pest management, harvesting and marketing.
	-------	[Game Farm Management.] (deleted, included under 01.0399)
*	01.0399	**Agricultural Production Workers and Managers, Other.** Any instructional program in agricultural production not described above.
01.04	**Agricultural and Food Products Processing.** A group of instructional programs (see 01.0401)	
*	01.0401	**Agricultural and Food Products Processing Operations and Management.** An instructional program that prepares individuals to receive, inspect, store and process agricultural food or products preparatory to marketing. Includes instruction in the characteristics and properties of agricultural products, and processing and storage techniques.
	-------	[Food Products.] (deleted, included under 01.0401)
	-------	[Agricultural Products and Processing, Other.] (deleted, included under 01.0401)

01.05 **Agricultural Supplies and Related Services.** A group of instructional programs (see 01.0501)

* 01.0501 **Agricultural Supplies Retailing and Wholesaling.** An instructional program that generally prepares individuals to sell supplies for agricultural production, provide agricultural services and purchase and market agricultural products.

------- [Agricultural Services.] (deleted, included under 01.0501)

------- [Agricultural Supplies Marketing.] (deleted included under 01.0501)

------- [Pet Grooming.] (deleted, included under 01.0599)

* 01.0505 **Animal Trainer.** An instructional program that prepares individuals to teach animals to obey commands: perform services; perform in sports and leisure activities; provide security; assist in law enforcement; assist in search and rescue operations or perform entertainment tricks.

------ [Horseshoeing.] (deleted, included under 01.0599)

01.0507 **Equestrian/Equine Studies, Horse Management and Training.** An instructional program that prepares individuals to care for horses and horse equipment; to train horses for various work and athletic or entertainment roles; to ride horses; and to manage horse training, breeding and housing programs and facilities.

* 01.0599 **Agricultural Supplies and Related Services, Other.** Any instructional program in agricultural supplies and support services not described above.

01.06 **Horticulture Services Operations and Management.** A group of instructional programs (see 01.0601)

* 01.0601 **Horticulture Services Operations and Management, General.** An instructional program that generally prepares individuals to produce, process and market plants, shrubs and trees used principally for ornamental, recreational and aesthetic purposes and to establish, maintain, and manage horticultural enterprises.

------- [Arboriculture.] (deleted, included under 01.0699)

------- **Horticulture Science.** (refer to 02.0403)

* 01.0603 **Ornamental Horticulture Operations and Management.** An instructional program that prepares individuals to produce flowers, foliage, and related plant materials in fields and greenhouses for ornamental purposes, and to arrange, package and market these materials. Includes instruction in enterprise management.

* 01.0604 **Greenhouse Operations and Management.** An instructional program that prepares individuals to produce commercial plant species in controlled environments, and to manage commercial and experimental greenhouse operations.

* 01.0605 **Landscaping Operations and Management.** An instructional program that prepares individuals to procure, plant and maintain grounds and indoor and outdoor ornamental plants. Includes instruction in equipment maintenance and facilities management.

------- **Landscape Architecture.** (refer to 04.0601)

* 01.0606 **Nursery Operations and Management.** An instructional program that prepares individuals to produce turf, shrubs, and trees for the purpose of transplanting or propagation. Includes instruction in enterprise management.

* 01.0607 **Turf Management.** An instructional program that prepares individuals to establish, manage and maintain ornamental or recreational grassed areas, to prepare and maintain athletic playing surfaces, and to produce turf for transplantation.

* 01.0699 **Horticulture/Services Operations and Management, Other.** Any instructional program in horticulture management and production not described above.

01.07 **International Agriculture.** A group of instructional programs (see 01.0701)

01.0701 **International Agriculture.** An instructional program that describes the application of agricultural principles to problems of global food production and distribution, and to the study of the agricultural systems of other nations.

------- **Development Economics and International Development.** (refer to 45.0604)

01.99 **Agricultural Business and Production, Other.** A group of instructional programs (see 01.9999)

* 01.9999 **Agricultural Business and Production, Other.** Any instructional program in agricultural business and production not described above.

02. **AGRICULTURAL SCIENCES.** A summary of groups of instructional programs that describe the study of animals and plants as related to agricultural production, the organization of agricultural work, and the processing and distribution of food and fiber products.

02.01 **Agriculture/Agricultural Sciences.** A group of instructional programs (see 02.0101)

* 02.0101 **Agriculture/Agricultural Sciences, General.** An instructional program that generally describes the principles and practices of agricultural research and production, and may prepare individuals to apply such knowledge and skills to the solution of practical agricultural problems. Includes instruction in basic animal, plant, and soil science; animal husbandry and plant cultivation; and soil conservation.

------- **Agricultural Teacher Education (Vocational).** (refer to 13.1301)

------- **Agricultural Engineering.** (refer to 14.0301)

02.0102 **Agricultural Extension.** An instructional program that prepares individuals to provide referral, consulting, assistance and educational services to farmers and ranchers via local, state or federal government agencies. Includes instruction in agricultural sciences, agricultural business operations, agricultural law and administrative regulations, public relations, and communications skills.

02.02 **Animal Sciences.** A group of instructional programs (see 02.0201)

----- **Zoology.** (refer to 26.07 Series)

02.0201 **Animal Sciences, General.** An instructional program that generally describes the scientific principles that underlie the breeding and husbandry of agricultural animals, and the production, processing, and distribution of agricultural animal products.

02.0202 **Agricultural Animal Breeding and Genetics.** An instructional program that describes the application of genetics to the improvement of agricultural animal health, the development of new animal breeds, and the selective improvement of animal populations.

-------- **Genetics, Plant and Animal.** (refer to 26.0613)

02.0203 **Agricultural Animal Health.** An instructional program that describes the scientific principles that affect the prevention and control of diseases in agricultural animals.

-------- **Veterinary Assistant/Animal Health Technician.** (refer to 51.0808)

-------- **Veterinary Medicine (D.V.M.).** (refer to 51.2401)

-------- **Veterinary Clinical Sciences (M.S., Ph.D.).** (refer to 51.2501)

02.0204 **Agricultural Animal Nutrition.** An instructional program that describes the biology and chemistry of proteins, fats, carbohydrates, water, vitamins, and feed additives and their relation to animal health and the production of improved animal products.

-------- **Nutritional Sciences.** (refer to 26.0609)

02.0205 **Agricultural Animal Physiology.** An instructional program that describes the application of physiological principles to the study of agricultural animals and production problems. Instruction is provided in lactation, reproduction, digestion and growth.

-------- **Physiology, Human and Animal.** (refer to 26.0706)

02.0206 **Dairy Science.** An instructional program that describes the biological theories, principles, and applications that apply to the production and management of dairy animals and the production of milk products.

------- **Agricultural Animal Husbandry and Production Management.** (refer to 01.0302)

------- **Entomology.** (refer to 26.0702)

------- **Parasitology.** (refer to 26.0610)

------- [Livestock.] (deleted, included under 02.0201)

02.0209 **Poultry Science.** An instructional program that describes the scientific theories, principles, and applications pertaining to the management of poultry populations and the production of poultry products.

-------- **Agricultural Animal Husbandry and Production Management.** (refer to 01.0302)

-------- **Fishing and Fisheries Management and Sciences.** (refer to 03.0301)

02.0299 **Animal Sciences, Other.** Any instructional program in animal sciences not described above.

02.03 **Food Sciences and Technology.** A group of instructional programs (see 02.0301)

02.0301 **Food Sciences and Technology.** An instructional program that describes the biological, chemical, physical and engineering principles and practices involved in converting agriculture products to forms suitable for direct human consumption or for storage, and the solution of problems relating to product transportation, storage and marketing.

------- **Agricultural Engineering.** (refer to 14.0301)

------- **Foods and Nutrition Science.** (refer to 19.0502)

02.04 **Plant Sciences.** A group of instructional programs (see 02.0401)

----- **Botany.** (refer to 26.03 Series)

02.0401 **Plant Sciences, General.** An instructional program that generally describes the scientific theories and principles involved in the production and management of plants for food, feed, fiber and soil conservation.

------- **Crop Production Operations and Management.** (refer to 01.0304)

02.0402 **Agronomy and Crop Science.** An instructional program that describes the chemical, physical and biological relationships of crops and the soils nurturing them. Includes instruction in the growth and behavior of agricultural crops, the breeding of improved and new crop varieties, and the scientific management of soils for maximum plant nutrition and health.

02.0403 **Horticulture Science.** An instructional program that describes the scientific principles involved in the cultivation of garden and ornamental plants, including fruits, vegetables, flowers, landscape and nursery crops. Includes instruction in specific types of plants, plant breeding, plant physiology, and the management of garden/nursery crops throughout the plant life cycle.

02.0405 **Plant Breeding and Genetics.** An instructional program that describes the scientific theories and principles underlying plant breeding, development and mutation, including hybridization and differential selection for plant improvement. Includes instruction in botanical biometry, statistics and computer analysis.

------- **Genetics, Plant and Animal.** (refer to 26.0613)

02.0406 **Agricultural Plant Pathology.** An instructional program that describes the scientific principles associated with recognizing diseased plants, identifying causal agents, the development of disease response mechanisms and treatments, and the prevention or reduction of economic loss.

-------- **Plant Pathology.** (refer to 26.0305)

02.0407 **Agricultural Plant Physiology.** An instructional program that describes the scientific principles involved in the life processes of plants and plant responses to the elements of the physical environment, including nutrition, respiration, growth, photosynthesis, and reproduction.

------- **Plant Physiology.** (refer to 26.0307)

02.0408 **Plant Protection (Pest Management).** An instructional program that describes the principles and practices of controlling and preventing economic loss caused by plant pests, and related environmental protection measures. Includes instruction in entomology, plant pathology, weed science, crop science and environmental toxicology.

------- **Parasitology.** (refer to 26.0610)

-------- **Entomology.** (refer to 26.0702)

02.0409 **Range Science and Management.** An instructional program that describes the scientific principles and practices involved in studying and managing rangelands, arid regions, grasslands and other areas of low productivity. Includes instruction in livestock grazing systems management, soil science, plant and wildlife ecology, and hydrology.

-------- **Wildlife and Wildlands Management.** (refer to 03.0601)

02.0499 **Plant Sciences, Other.** Any instructional program in plant sciences not described above.

02.05 **Soil Sciences.** A group of instructional programs (see 02.0501)

02.0501 **Soil Sciences.** An instructional program that describes the scientific classification and study of soils and soil properties. Includes instruction in soil chemistry, soil physics, soil biology, soil fertility, morphogenesis, mineralogy and hydrology, and soil conservation and management.

02.99 **Agriculture/Agricultural Sciences, Other.** A group of instructional programs (see 02.9999)

* 02.9999 **Agriculture/Agricultural Sciences, Other.** Any instructional programs in agriculture/agricultural sciences not described above.

03. **CONSERVATION AND RENEWABLE NATURAL RESOURCES.** A summary of groups of instructional programs that prepare individuals for activities involving the conservation and/or improvement of natural resources.

03.01 **Natural Resources Conservation.** A group of instructional programs (see 03.0101)

03.0101 **Natural Resources Conservation, General.** An instructional program that generally describes activities involving the conservation and/or improvement of natural resources such as air, soil, water, land, fish, and wildlife for economic and recreation purposes.

03.0102 **Environmental Science/Studies.** An instructional program that describes the study of the biological and physical aspects of the environment and environment-related issues, including methods of abating or controlling environmental pollution and collateral damage.

-------- **Ecology.** (refer to 26.0603)

03.02 **Natural Resources Management and Protective Services.** A group of instructional programs preparing individuals to engage in activities concerned with monitoring and maintaining the quality of the natural environment.

03.0201 **Natural Resources Management and Policy.** An instructional program that prepares individuals to plan, develop and conduct programs to protect and maintain natural habitats and renewable natural resources. Includes instruction in wildlife biology, animal population surveys, economics, conservation techniques, public education, and administration.

-------- **Public Policy Analysis.** (refer to 44.0501)

-------- **Applied and Resource Economics.** (refer to 45.0602)

-------- [Conservation.] (deleted, included under 03.0101)

* 03.0203 **Natural Resources Law Enforcement and Protective Services.** An instructional program that prepares individuals to enforce natural resource and environmental protection regulations and laws; and to perform emergency duties to protect human life, property and natural resources, including fire prevention and control measures, and emergency and rescue procedures.

------- **Law Enforcement/Police Science.** (refer to 43.0107)

------- **Fire Science/Firefighting.** (refer to 43.0203)

* 03.0299 **Natural Resources Management and Protective Services, Other.** Any instructional program in natural resources management and protective services not described above.

03.03 **Fishing and Fisheries Sciences and Management.** A group of instructional programs (see 03.0301)

03.0301 **Fishing and Fisheries Sciences and Management.** An instructional program that describes the scientific study of the husbandry of fish populations for recreational, ecological, and commercial purposes; and the application of such studies to the management of marine life resources and fisheries. Includes instruction in principles of aquatic and marine biology, water resources, fishing production and management operations, fishing regulations, water quality monitoring, and the management of recreational and commercial fishing activities.

------- **Aquaculture/Operations and Production Management.** (refer to 01.0303)

------- **Marine/Aquatic Biology.** (refer to 26.0607)

------- **Fishing Technology/Commercial Fishing.** (refer to 49.0303)

03.04 **Forest Production and Processing.** A group of instructional programs that prepare individuals to assist foresters, scientists and wood processing facility managers in the maintenance of forest lands and resources, and the harvesting and processing of forest products.

----- **Agricultural Production.** (refer to 01.03 Series)

* 03.0401 **Forest Harvesting and Production Technology/Technician.** An instructional program that prepares individuals to assist foresters in managing, protecting and harvesting timber stands and specialty forest crops. Includes instruction in equipment maintenance and repair, tree planting, selection and identification of trees for special attention, transplantation and harvesting, and forest management and safety procedures.

------- [Forest Production.] (deleted, included under 03.0401)

------- [Forest Products Utilization.] (deleted, included under 03.0404)

* 03.0404 **Forest Products Technology/Technician.** An instructional program that prepares individuals to assist a manager, engineer, chemist, or forest product scientist in the measurement, analysis of quality, testing, and processing of harvested forest raw materials, and the selection, grading and marketing of forest products to be used for specific purposes. Includes instruction in identifying, measuring, assessing quality, evaluating commercial value, and strength testing.

* 03.0405 **Logging/Timber Harvesting.** An instructional program that prepares individuals to operate logging equipment and machinery for the direct harvesting of timber crops, including equipment maintenance and the practice of safety procedures.

* 03.0499 **Forest Production and Processing, Other.** Any instructional program in forestry production and processing not described above.

03.05 **Forestry and Related Sciences.** A group of instructional programs that prepare individuals to apply scientific, engineering, and management principles to the management and use of natural resources that occur on, and in association with, forest lands.

-- **Agricultural Sciences.** (refer to 02. Series)

-- **Biological Sciences/Life Sciences.** (refer to 26. Series)

* 03.0501 **Forestry, General.** An instructional program that generally prepares individuals to manage and develop forest areas for economic, recreational and ecological purposes. Includes instruction in forest-related sciences, mapping, statistics, harvesting and production technology, resource protection, management and economics, ecology and biology, administration, and public relations.

-------- **Natural Resources Conservation.** (refer to 03.0101)

03.0502 **Forestry Sciences.** An instructional program that describes the application of scientific principles to the study of environmental factors affecting forests and to the growth and management of forest resources. Includes instruction in forest biology, forest hydrology, forest engineering, silviculture, disease and pest control, and the development of improved tree varieties.

----- **Plant Sciences.** (refer to 02.04 Series)

----- **Botany.** (refer to 26.03 Series)

-------- **Soil Sciences.** (refer to 02.0501)

-------- **Environmental Science/Studies.** (refer to 03.0102)

03.0506 **Forest Management.** An instructional program that prepares individuals in the management and administration of forests and forest lands. Includes instruction in silviculture, forest protection, forest policy, and forest resources planning and economics.

-------- **Agricultural Business/Agribusiness Operations.** (refer to 01.0102)

-------- **Agricultural Production Workers and Managers, General.** (refer to 01.0301)

-------- **Natural Resources Management and Policy.** (refer to 03.0201)

03.0509 **Wood Science and Pulp/Paper Technology.** An instructional program that prepares individuals to apply scientific and engineering principles to analyze the properties and behavior of wood and wood products; to analyze the chemical and physical processes involved in converting wood into paper and other products; and the design and development of related machinery and systems.

-------- **Agricultural Engineering.** (refer to 14.0301)

03.0599 **Forestry and Related Sciences, Other.** Any instruction program in forestry and related sciences not described above.

03.06 **Wildlife and Wildlands Management.** A group of instructional programs (see 03.0601).

* 03.0601 **Wildlife and Wildlands Management.** An instructional program that prepares individuals in the principles and practices used in the conservation and management of wildlands and wildlife

resources for aesthetic, ecological, and recreational uses.

------- **Range Science and Management.** (refer to 02.0409)

------- **Natural Resources Management and Policy.** (refer to 03.0201)

03.99 **Conservation and Renewable Natural Resources, Other.** A group of instructional programs (see 03.9999)

* 03.9999 **Conservation and Renewable Natural Resources, Other.** Any instructional program in conservation and renewable natural resources not described above.

04. **ARCHITECTURE AND RELATED PROGRAMS.** A summary of groups of instructional programs that describe the principles and methods used to create, adapt, alter, preserve, and control human physical and social surroundings and habitations.

----- [Architecture and Environmental Design, General.] (deleted)

------- [Architecture and Environmental Design, General.] (deleted, included under 04.9999)

04.02 **Architecture.** A group of instructional programs (see 04.0201).

04.0201 **Architecture.** An instructional program that prepares individuals for the independent professional practice of architecture. Includes instruction in architectural design; architectural history and theory; building structures and environmental systems; site planning; construction; professional responsibilities and standards; and the cultural, social, economic and environmental issues relating to architectural practice.

------- **Architectural Engineering.** (refer to 14.0401)

------- **Structural Engineering.** (refer to 14.0803)

------- **Architectural Engineering Technology/Technician.** (refer to 15.0101)

------- **Construction/Building Technology/Technician.** (refer to 15.1001)

------- **Historic Preservation, Conservation and Architectural History.** (refer to 30.1201)

------- **Architectural Drafting.** (refer to 48.0102)

04.03 **City/Urban, Community and Regional Planning.** A group of instructional programs (see 04.0301).

04.0301 **City/Urban, Community and Regional Planning.** An instructional program that prepares individuals to apply principles of planning and analysis to the development and improvement of urban areas or surrounding regions, including the development of master plans, the design of urban services systems, and the economic and policy issues related to planning and plan implementation.

------- **Architectural Urban Design and Planning.** (refer to 04.0701)

------- **Community Organization, Resources and Services.** (refer to 44.0201)

-------- **Public Policy Analysis.** (refer to 44.0501)

-------- **Applied and Resource Economics.** (refer to 45.0602)

-------- **Urban Affairs/Studies.** (refer to 45.1201)

04.04 **Architectural Environmental Design.** A group of instructional programs (see 04.0401)

04.0401 **Architectural Environmental Design.** An instructional program that prepares individuals for the independent professional practice of environmental architecture -- the processes and techniques of designing total environments and living systems for human populations, both indoor and outdoor. Includes instruction in relating the structural, aesthetic and social concerns affecting life and work to the needs of clients and the constraints of the site environment.

04.05 **Interior Architecture.** A group of instructional programs (see 04.0501)

04.0501 **Interior Architecture.** An instructional program that prepares individuals for the independent professional practice of interior architecture -- the processes and techniques of designing living, work and leisure indoor environments as integral components of a building system. Includes instruction in building design and structural systems, heating and cooling systems, safety and health standards, and interior design principles and standards.

-------- **Interior Design.** (refer to 50.0408)

04.06 **Landscape Architecture.** A group of instructional programs (see 04.0601)

04.0601 **Landscape Architecture.** An instructional program that prepares individuals for the independent professional practice of landscape architecture. Includes instruction in site planning, site analysis, site engineering, environmental impact, garden and landscape art and design, horticulture, and applicable regulations.

-------- **Landscaping Operations and Management.** (refer to 01.0605)

04.07 **Architectural Urban Design and Planning.** A group of instructional programs (see 04.0701)

04.0701 **Architectural Urban Design and Planning.** An instructional program that prepares individuals for the independent professional practice of urban systems design and planning -- the processes and techniques of designing and modifying the physical elements constituting built urban environments. Includes instruction in regional and community site planning, architecture, systems planning, transportation and logistics design, human services planning, legal codes and zoning development, and related economic and policy issues.

-------- **City/Urban, Community and Regional Planning.** (refer to 04.0301)

-------- **Transportation and Highway Engineering.** (refer to 14.0804)

-------- **Urban Affairs/Studies.** (refer to 45.1201)

----- [Land Use Management and Reclamation.] (deleted)

-------- [Land Use Management and Reclamation.] (deleted, included under 04.9999)

04.99 **Architecture and Related Programs, Other.** A group of instructional programs (see 04.9999)

04.9999 **Architecture and Related Programs, Other.** Any instructional program in architecture and related programs not described above.

05. **AREA, ETHNIC AND CULTURAL STUDIES.** A summary of groups of instructional programs that describe the history, society, politics, culture, and economics of a particular geographic region, or a particular subset of the population sharing common characteristics, traits and customs.

-- **Foreign Languages and Literatures.** (refer to 16. Series)

-- **Multi/Interdisciplinary Studies.** (refer to 30. Series)

-- **Social Sciences and History.** (refer to 45. Series)

-- **Visual and Performing Arts.** (refer to 50. Series)

05.01 **Area Studies.** A group of instructional programs that describe the history, society, politics, culture, and economics of a particular geographic region.

----- **International Relations and Affairs.** (refer to 45.09 Series)

----- **Development Economics and International Development.** (refer to 45.0604)

05.0101 **African Studies.** An instructional program that describes the history, society, politics, culture, and economics of Africa, with emphasis on societies south of the Sahara.

------- **Afro-American (Black) Studies.** (refer to 05.0201)

05.0102 **American Studies/Civilization.** An instructional program that describes the history, society, politics, culture, and economics of the United States of America and its regions such as Appalachia, New England, the South, the West, and others.

------- **Ethnic and Cultural Studies.** (refer to 05.02 Series)

------- **American Literature (United States).** (refer to 23.0701)

------- **American (United States) History.** (refer to 45.0802)

------- **American Government and Politics.** (refer to 45.1002)

05.0103 **Asian Studies.** An instructional program that describes the general history, society, politics, culture, and economics of the continent of Asia and its borderlands, including related island groups.

------- **Ethnic and Cultural Studies.** (refer to 05.02 Series)

05.0104 **East Asian Studies.** An instructional program that describes the history, society, politics, culture, and economics of East Asia, including China, Japan, Korea, Mongolia and Eastern Central Asia, Taiwan and Tibet.

------- **East and Southeast Asian Languages and Literatures.** (refer to 16.03 Series)

-------	**Asian-American Studies.** (refer to 05.0206)
05.0105	**Eastern European Area Studies.** An instructional program that describes the history, society, politics, culture, and economics of Eastern Europe, including the Balkans, Czechoslovakia, Hungary, Poland, Romania, the European portions of the U.S.S.R. and its constituent republics, and the region of Germany comprising the former East Germany.
-----	**East European Languages and Literatures.** (refer to 16.04 Series)
05.0106	**European Studies.** An instructional program that describes the general history, society, politics, culture, and economics of the European Continent and its borderlands.
-------	**European History.** (refer to 45.0803)
05.0107	**Latin American Studies.** An instructional program that describes the history, society, politics, culture, and economics of Mexico, the Caribbean, Central and South America.
-----	**Ethnic and Cultural Studies.** (refer to 05.02 Series)
-----	**Romance Languages and Literatures.** (refer to 16.09 Series)
05.0108	**Middle Eastern Studies.** An instructional program that describes the history, society, politics, culture, and economics of the Fertile Crescent, Arabic-speaking North Africa, Anatolia, the Caucasus, Iran, the Arabian Peninsula, and the Indo-Soviet borderlands of Central Asia.
-----	**Ethnic and Cultural Studies.** (refer to 05.02 Series)
-----	**Middle Eastern Languages and Literatures.** (refer to 16.11 Series)
05.0109	**Pacific Area Studies.** An instructional program that describes the history, society, politics, culture, and economics of Australia, New Zealand and the Pacific Islands; excluding the Philippines, Taiwan and Japan.
05.0110	**Russian and Slavic Area Studies.** An instructional program that describes the history, society, politics, culture, and economics of the Slavic peoples of Europe, including Russia.
-----	**East European Languages and Literatures.** (refer to 16.04 Series)
05.0111	**Scandinavian Area Studies.** An instructional program that describes the history, society, politics, culture, and economics of Northern Europe and the Baltic, including Denmark, Finland, Iceland, Norway and Sweden.
-------	**Scandinavian Languages and Literatures.** (refer to 16.0502)
05.0112	**South Asian Studies.** An instructional program that describes the history, society, politics, culture, and economics of the peoples of the Indian Subcontinent and the Indian Ocean, including Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka, and the Maldive Islands.
-------	**Asian-American Studies.** (refer to 05.0206)
-------	**South Asian Languages and Literatures.** (refer to 16.0703)
05.0113	**Southeast Asian Studies.** An instructional program that describes the history, society, politics, culture, and economics of the Southeast Asian Peninsula and the Indonesian and Philippine Archipelagoes, including Burma, Cambodia, Indonesia, Laos, Malaysia, The Philippines, Singapore, Thailand and Vietnam.

----- **Ethnic and Cultural Studies.** (refer to 05.02 Series)

----- **East and Southeast Asian Languages and Literatures.** (refer to 16.03 Series)

05.0114 **Western European Studies.** An instructional program that describes the history, society, politics, culture and economics of the Western European peoples, including the Alpine region, the British Isles, France, the Iberian Peninsula, Italy, the Low Countries, and Germany.

05.0115 **Canadian Studies.** An instructional program that describes the history, society, politics, culture and economics of Canada, including the English- and French-speaking peoples.

05.0199 **Area Studies, Other.** Any instructional program in area studies not described above.

05.02 **Ethnic and Cultural Studies.** A group of instructional programs that describe the history, society, politics, culture, and economics of subsets of the population sharing common racial characteristics or common traits and customs.

05.0201 **Afro-American (Black) Studies.** An instructional program that describes the history, society, politics, culture, and economics of the black populations of the Western Hemisphere, with emphasis on the United States and the Caribbean.

05.0202 **American Indian/Native American Studies.** An instructional program that describes the history, society, politics, culture, and economics of the original inhabitants of the Western Hemisphere, including American Indians, Aleuts and Eskimos.

05.0203 **Hispanic-American Studies.** An instructional program that describes the history, society, politics, culture and economics of Hispanic Americans in the United States, including Mexican-Americans, Puerto Ricans, Cuban-Americans, and others.

------- **Latin American Studies.** (refer to 05.0107)

05.0204 **Islamic Studies.** An instructional program that describes the history, traditions, literature, society, politics, culture and economics of the Islamic peoples.

05.0205 **Jewish/Judaic Studies.** An instructional program that describes the history, traditions, literature, society, politics, culture, and economics of the Jewish people.

05.0206 **Asian-American Studies.** An instructional program that describes the history, society, politics, culture and economics of Asian-Americans in the United States including immigrants and their descendants from East Asia, South Asia, and Southeast Asia.

05.0207 **Women's Studies.** An instructional program that describes the history, society, politics, culture, and economics of women as individuals and social actors. Includes instruction in feminist theory and perspectives, as well as other approaches and methods.

05.0299 **Ethnic and Cultural Studies, Other.** Any instructional program in ethnic and cultural studies not described above.

05.99 **Area, Ethnic and Cultural Studies, Other.** A group of instructional programs (see 05.9999)

05.9999 **Area, Ethnic and Cultural Studies, Other.** Any instructional program in area, ethnic and cultural studies not described above.

-- **BUSINESS AND MANAGEMENT.** (moved to 52. BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES)

-- **BUSINESS (ADMINISTRATIVE SUPPORT).** (moved to 52. BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES)

08. **MARKETING OPERATIONS/MARKETING AND DISTRIBUTION.** A summary of groups of instructional programs that prepare individuals to plan and execute, at the operational or direct sales level, the promotion and distribution of ideas, goods and services in order to create exchanges that satisfy individual and organizational objectives.

-- **Business Management and Administrative Services.** (refer to 52. Series)

----- **Marketing Management and Research.** (refer to 52.14 Series)

------- **Marketing Operations Teacher Education/Marketing and Distributive Teacher Education (Vocational).** (refer to 13.1310)

08.01 **Apparel and Accessories Marketing Operations.** A group of instructional programs (see 08.0101)

* 08.0101 **Apparel and Accessories Marketing Operations, General.** An instructional program that generally prepares individuals to perform marketing tasks specifically applicable to all segments of the apparel and fashion industry.

* 08.0102 **Fashion Merchandising.** An instructional program that prepares individuals to perform wholesaling tasks specifically applicable to promoting product lines to the retail segment of the apparel and fashion industry.

* 08.0103 **Fashion Modeling.** An instructional program that prepares individuals to model (i.e., display) clothing or clothing-related articles for designers, buyers, salespeople, and potential customers.

------- [Footwear Marketing.] (deleted, included under 08.0199)

------- [Jewelry Marketing.] (deleted, included under 08.0199)

* 08.0199 **Apparel and Accessories Marketing Operations, Other.** Any instructional program in apparel and accessories marketing operations not described above.

08.02 **Business and Personal Services Marketing Operations.** A group of instructional programs that prepare individuals to apply marketing concepts in the delivery of services to business or for personal consumption.

------- [Business and Personal Services Marketing] (deleted, included under 08.0299)

------- [Display.] (deleted, included under 08.0299)

------- [Marketing of Business and Personal Services.] (deleted, included under 08.0299)

* 08.0204 **Business Services Marketing Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to business community services.

* 08.0205 **Personal Services Marketing Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to personal services.

* 08.0299 **Business and Personal Services Marketing Operations, Other.** Any instructional program in business or personal services marketing operations not described above.

08.03 **Entrepreneurship.** A group of instructional programs (see 08.0301)

----- **Enterprise Management and Operation.** (refer to 52.07 Series.)

* 08.0301 **Entrepreneurship.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to developing business enterprises.

08.04 **Financial Services Marketing Operations.** A group of instructional programs (see 08.0401)

----- **Financial Management and Services.** (refer to 52.08 Series)

* 08.0401 **Financial Services Marketing Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to banks, credit unions, and other financial institutions.

08.05 **Floristry Marketing Operations.** A group of instructional programs (see 08.0503)

----- **Horticulture Management and Production.** (refer to 01.06 Series)

* 08.0503 **Floristry Marketing Operations.** An instructional program that prepares individual to perform marketing tasks specifically applicable to the floristry industry.

------- [Floristry, Farm and Garden Supplies Marketing, General.] (deleted, included under 08.9999)

------- [Farm and Garden Supplies Marketing.] (deleted, included under 08.9999)

------- [Floristry, Farm and Garden Supplies Marketing, Other.] (deleted, included under 08.9999)

08.06 **Food Products Retailing and Wholesaling Operations.** A group of instructional programs (see 08.0601)

* 08.0601 **Food Products Retailing and Wholesaling Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to food supplies and grocery wholesaling and retailing.

------- [Convenience Store Marketing.] (deleted, included under 08.0601)

------- [Specialty Foods Marketing.] (deleted, included under 08.0601)

------- [Supermarket Marketing.] (deleted, included under 08.0601)

------- [Wholesale Food Marketing.] (deleted, included under 08.0601)

------- [Food Marketing, Other.} (deleted, included under 08.0601)

08.07 **General Retailing and Wholesaling Operations and Skills.** A group of instructional programs (see 08.0708)

* 08.0701 **Auctioneering.** An instructional program that prepares individuals to sell articles at an auction to the highest bidder.

------- [Industrial Sales.] (deleted, included under 08.0799)

------- **International Marketing.** (moved to 52.1403)

* 08.0704 **General Buying Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to obtaining goods and services for a business.

------- **Purchasing, Procurement and Contracts Management.** (refer to 52.0202)

* 08.0705 **General Retailing Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to retail operations in a wide variety of settings.

* 08.0706 **General Selling Skills and Sales Operations.** An instructional program that prepares individuals to perform the techniques of direct consumer persuasion, involving planned, personalized communications, as agents for a wide variety of industries and product types.

------- [Wholesaling.] (deleted, included under 08.0799)

* 08.0708 **General Marketing Operations.** An instructional program that prepares individuals to perform various marketing tasks applicable to a wide variety of industries and commercial settings.

------- **Business Marketing, General.** (refer to 52.1401)

* 08.0709 **General Distribution Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to storing and shipping commodities, either for businesses or retail consumers.

------- **Logistics and Materials Management.** (refer to 52.0203)

* 08.0799 **General Retailing and Wholesaling Operations and Skills, Other.** Any instructional program in miscellaneous marketing operations skills not described above.

08.08 **Home and Office Products Marketing Operations.** An instructional program that prepares individuals to perform marketing tasks at all levels relating to the sales of either home or office products.

----- **Home Furnishings and Equipment Installers and Consultants.** (refer to 20.05 Series)

------- [Home and Office Products Marketing, General] (deleted, included under 08.0899)

------- [Appliance Marketing.] (deleted, included under 08.0809)

------- [Building Materials Marketing.] (deleted, included under 08.9999)

------- [Furniture Marketing.] (deleted, included under 08.0809)

------- [Hardware Marketing.] (deleted, included under 08.9999)

------- [Office Products and Equipment Marketing.] (deleted, included under 08.0810)

------- [Specialty Home Furnishings Marketing.] (deleted, included under 08.0809)

* 08.0809 **Home Products Marketing Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to hardware, building materials and equipment, and household supplies.

* 08.0810 **Office Products Marketing Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to business equipment and supplies.

* 08.0899 **Home and Office Products Marketing Operations, Other.** Any instructional program in home and offices products marketing operations not described above.

08.09 **Hospitality and Recreation Marketing Operations.** A group of instructional programs (see 08.0901)

----- **Culinary Arts and Related Services.** (refer to 12.05 Series)

----- **Institutional Food Workers and Administrators.** (refer to 20.04 Series)

----- **Hospitality Services Management.** (refer to 52.09 Series)

* 08.0901 **Hospitality and Recreation Marketing Operations, General.** An instructional program that generally prepares individuals to perform marketing tasks applicable to a wide variety of hospitality and leisure industry settings.

* 08.0902 **Hotel/Motel Services Marketing Operations.** an instructional program that prepare individuals to perform marketing tasks specifically applicable to hotels and motels.

* 08.0903 **Recreation Products/Services Marketing Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to the retail sports and recreation equipment and supplies industry.

    ------- [Recreational Products Marketing.] (deleted, included under 08.0903)

    ------- **Waiter/Waitress and Dining Room Manager.** (moved to 12.0507)

* 08.0906 **Food Sales Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to the ready-to-eat food and beverage industry.

    ------- **Kitchen Personnel/Cook and Assistant Training.** (refer to 12.0505)

* 08.0999 **Hospitality and Recreation Marketing Operations, Other.** Any instructional program in hospitality and recreation marketing operations not described above.

08.10 **Insurance Marketing Operations.** A group of instructional programs (see 08.1001)

* 08.1001 **Insurance Marketing Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to the insurance industry.

    ------- **Insurance and Risk Management.** (refer to 52.0805)

08.11 **Tourism and Travel Services Marketing Operations.** A group of instructional programs that prepare individuals to perform marketing operations tasks in various travel and tourism settings.

----- **Hospitality Services Management.** (refer to 52.09 Series)

    ------- [Transportation and Travel Marketing, General.] (deleted, included under 08.0709)

    ------- [Transportation Marketing.] (deleted, included under 08.1199)

* 08.1104 **Tourism Promotion Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to the tourism promotion industry.

* 08.1105 **Travel Services Marketing Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to the travel industry.

------- [Warehouse Services Marketing.] (deleted, included under 08.1199)

* 08.1199 **Tourism and Travel Services Marketing Operations, Other.** Any instructional program in tourism and travel services marketing operations not described above.

08.12 **Vehicle and Petroleum Products Marketing Operations.** A group of instructional program that prepares individuals to perform marketing tasks applicable to the vehicular sales and retail petroleum industries.

------- [Vehicles and Petroleum Marketing, General.] (deleted, included under 08.1299)

* 08.1203 **Vehicle Parts and Accessories Marketing Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to the retail vehicular parts and accessories industry.

------- [Petroleum Wholesaling.] (deleted, included under 08.1209)

------- [Recreational Vehicles and Accessories Marketing.] (deleted, included under 08.1208)

------- [Service Station Retailing.] (deleted, included under 08.1209)

------- [Vehicle Rental and Leasing.] (deleted, included under 08.1299)

* 08.1208 **Vehicle Marketing Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to the retail vehicle sales industry.

* 08.1209 **Petroleum Products Retailing Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to the retail petroleum products and service industry.

* 08.1299 **Vehicle and Petroleum Products Marketing Operations, Other.** Any instructional program in vehicle and petroleum products marketing operations not described above.

08.13 **Health Products and Services Marketing Operations.** A group of instructional programs that prepare individuals to market health products and services.

* 08.1301 **Health Products and Services Marketing Operations.** An instructional program that prepares individuals to perform marketing tasks specifically applicable to the health care supplies and services industry.

08.99 **Marketing Operations/Marketing and Distribution, Other.** A group of instructional programs (see 08.9999)

* 08.9999 **Marketing Operations/Marketing and Distribution, Other.** Any instructional program in marketing operations/marketing and distribution not described above.

09. **COMMUNICATIONS.** A summary of groups of instructional programs that describe the creation, transmission and evaluation of messages.

09.01 **Communications, General.** A group of instructional programs (see 09.0101).

----- **Communications Disorders Sciences and Services.** (refer to 51.02 Series)

* 09.0101 **Communications, General.** An instructional program that generally describes the creation, transmission and evaluation of messages at all levels, for commercial or non-commercial purposes, and that may prepare individuals to apply principles of communications to work in specific media. Includes instruction in modes and behavioral aspects of human communications, and the formal means by which society organizes communications.

------- **Speech and Rhetorical Studies.** (refer to 23.1001)

09.02 **Advertising.** A group of instructional programs (see 09.0201).

----- **General Retailing and Wholesaling Operations and Skills.** (refer to 08.07 Series)

----- **Design and Applied Arts.** (refer to 50.04 Series)

----- **Marketing Management and Research.** (refer to 52.14 Series)

* 09.0201 **Advertising.** An instructional program that describes the creation, execution, transmission, and evaluation of commercial messages concerned with the promotion and sale of products and services, and that prepares individuals to function as advertising assistants, technicians, managers and executives. Includes instruction in advertising theory; marketing strategy; advertising copy/art, layout and production methods; and media relations.

----- [Communications Research.] (deleted)

------- [Communications Research.] (deleted, included under 09.0101)

09.04 **Journalism and Mass Communications.** A group of instructional programs that describe the study of news production in various media, and the study of the provision of entertainment and information communications to mass audiences.

* 09.0401 **Journalism.** An instructional program that describes the methods and techniques for gathering, processing and delivering news, and that prepares individuals to be professional print journalists. Includes instruction in news writing and editing, reporting, journalism law and policy, professional standards and ethics, and journalism history and research.

* 09.0402 **Broadcast Journalism.** An instructional program that describes the methods and techniques by which radio and television news programs are produced and delivered, and that prepares individuals to be professional broadcast journalists. Includes instruction in principles of broadcast technology; program design and production; broadcast editing; on- and off-camera procedures and techniques; and broadcast media law and policy.

09.0403 **Mass Communications.** An instructional program that describes the study of the media by which entertainment and information messages are delivered, and the social effects of such messages. Includes instruction in communications theory; communications laws and policies; international communications media; propaganda and political communications; social issues in entertainment and mass communications; and the study of specific media and media organizations.

* 09.0499 **Journalism and Mass Communications, Other.** Any instructional program in journalism and mass communications not described above.

09.05 **Public Relations and Organizational Communications.** A group of instructional programs (see 09.0501)

09.0501 **Public Relations and Organizational Communications.** An instructional program that describes the methods and techniques for communicating image-oriented corporate and sponsor messages to various audiences, for promoting client interests, and for managing client-media relations, and that prepares individuals to perform public relations and related services.

----- [Radio/Television News Broadcasting.]

------- [Radio/Television News Broadcasting.] (moved to 09.0402)

09.07 **Radio and Television Broadcasting.** A group of instructional programs (see 09.0701).

* 09.0701 **Radio and Television Broadcasting.** An instructional program that describes the methods and techniques used to plan, produce and direct entertainment and informational programs and short subjects in the broadcast media, and that prepares individuals to function as professional announcers, directors and producers. Includes instruction in scheduling; film and tape editing; on- and off-camera/microphone procedures and techniques; sound mixing; studio direction; personnel and facilities management; and broadcast law, policies and code regulations.

------- **Radio and Television Broadcasting Technology/Technician.** (refer to 10.0104)

----- [Telecommunications.] (deleted)

------- [Telecommunications.] (deleted, included under 09.9999)

09.99 **Communications, Other.** A group of instructional programs (see 09.9999)

* 09.9999 **Communications, Other.** Any instructional program in communications not described above.

10. COMMUNICATIONS TECHNOLOGIES. A summary of groups of instructional programs (see 10.01)

10.01 **Communications Technologies.** A group of instructional programs that prepare individuals to support and assist communications professionals and skilled communications workers.

* 10.0101 **Educational/Instructional Media Technology/Technician.** An instructional program that prepares individuals to assist instructional media designers and other communications professionals in preparing educational and training films, tapes, recordings, videos, slides and overheads, and in operating related technical equipment.

------- **Educational/Instructional Media Design.** (refer to 13.0501)

------- [Motion Picture Technology.] (deleted, included under 50.0602)

* 10.0103 **Photographic Technology/Technician.** An instructional program that prepares individuals to support photographers and other professionals in preparing still, motion picture and video products; developing film and related technical processes; and operating specialized equipment.

------- **Commercial Photography.** (refer to 50.0406)

------- **Film/Motion Picture Making, Cinematography and Film Production.** (refer to 50.0602)

------- **Photography.** (refer to 50.0605)

* 10.0104 **Radio and Television Broadcasting Technology/Technician.** An instructional program that prepares individuals to support broadcast managers and other professionals in performing tasks related to the production of radio and television programs, films, and recordings. Includes instruction in operating specialized equipment.

------- **Radio and Television Broadcasting.** (refer to 09.0701)

------- [Sound Recording Technology.] (deleted, included under 10.0104)

------- [Video Technology.] (deleted, included under 10.0103)

* 10.0199 **Communications Technologies/Technicians, Other.** Any instructional program in communications technologies not described above.

11. **COMPUTER AND INFORMATION SCIENCES.** A summary of groups of instructional programs that describe the design, development and operation of electronic data storage and processing systems, including hardware and software.

------- **Computer Engineering.** (refer to 14.0901)

------- **Electrical, Electronics and Communications Engineering.** (refer to 14.1001)

------- **Systems Engineering.** (refer to 14.2701)

------- **Electrical, Electronics and Communications Engineering-Related Technologies/Technicians.** (refer to 15.03 Series)

------- **Business Information and Data Processing Services.** (refer to 52.12 Series)

11.01 **Computer and Information Sciences, General.** A group of instructional programs (see 11.0101)

11.0101 **Computer and Information Sciences, General.** An instructional program that generally describes the study of data and information storage and processing systems, including hardware, software, basic design principles, user requirements analysis, and related economic and policy issues.

------- **Computer Teacher Education.** (refer to 13.1321)

------- **Management Information Systems and Business Data Processing.** (refer 52.1201)

11.02 **Computer Programming.** A group of instructional programs (see 11.0201)

* 11.0201 **Computer Programming.** An instructional program that prepares individuals to apply methods and procedures used in designing and writing computer programs to developing solutions to specific operational problems and use requirements, including testing and trouble-shooting prototype software packages.

------- **Business Computer Programming/Programmer.** (refer to 52.1202)

11.03 **Data Processing Technology.** A group of instructional programs (see 11.0301)

* 11.0301 **Data Processing Technology/Technician.** An instructional program that prepares individuals to use and operate computers and associated software packages to perform a variety of tasks, including text processing, number processing, graphics, and data base management.

------- **Medical Records Technology/Technician.** (refer to 51.0707)

------- **Business Processing Technician/Data Entry Technician.** (refer to 52.0407)

11.04 **Information Sciences and Systems.** A group of instructional programs (see 11.0401)

11.0401 **Information Sciences and Systems.** An instructional program that describes the scientific study and development of electronic systems for transmitting information via signalling networks, and the study of information transmission from the point of generation to reception and human interpretation. Includes instruction in information systems planning and design, user needs analysis, and provider capacity and requirements analysis.

------- **Business Systems Networking and Telecommunications.** (refer to 52.1204)

11.05 **Computer Systems Analysis.** A group of instructional programs (see 11.0501)

11.0501 **Computer Systems Analysis.** An instructional program that prepares individuals to apply computer programming principles to the design and implementation of large-scale computer applications and networking systems. Includes instruction in system design, user prioritization, system and component optimization, and computer security systems.

------- **Business Systems Analysis and Design.** (refer to 52.1203)

----- [Microcomputer Applications.] (deleted)

------- [Microcomputer Applications.] (deleted, included under 11.9999)

11.07 **Computer Science.** A group of instructional programs (see 11.0701)

----- **Applied Mathematics.** (refer to 27.03 Series)

11.0701 **Computer Science.** An instructional program that describes the scientific and mathematical study of the algorithms used in designing and building computers, and their application to the development and design of actual computing systems. Includes instruction in computer architecture, assembly and programming languages, numerical and computational analysis, computer systems theory, artificial intelligence and cybernetics, and simulation and modeling.

-------- **Computer Teacher Education.** (refer to 13.1321)

-------- **Computer Engineering.** (refer to 14.0901)

-------- **Electrical, Electronic and Communications Engineering.** (refer to 14.1001)

-------- **Systems Engineering.** (refer to 14.2701)

11.99 **Computer and Information Sciences, Other.** A group of instructional programs (see 11.9999)

* 11.9999 **Computer and Information Sciences, Other.** Any instructional program in computer and information sciences not described above.

12. **PERSONAL AND MISCELLANEOUS SERVICES.** A summary of instructional programs that prepare individuals to provide a variety of services to individual consumers as well as to organizations such as businesses and industries.

----- [Drycleaning and Laundering Services.] (deleted)

-------- **Drycleaning and Laundering Services.** (moved to 20.0309)

12.02 **Gaming and Sports Officiating Services.** A group of instructional programs that prepare individuals to conduct and supervise gaming operations, and officiate at sports events.

-------- **Bartending.** (moved to 12.0502)

* 12.0203 **Card Dealer.** An instructional program that prepares individuals to operate card games, perform card tricks, and manage table gaming operations at casinos, night clubs, and other establishments. Includes instruction in the rules and procedures of specific games, and customer relations.

* 12.0204 **Umpires and Other Sport Officials.** An instructional program that prepares individuals to serve as umpires, judges, and other officials for athletic events and specific sports at the school, college, amateur, and professional levels. Includes instruction in the rules and procedures of specific sports, public relations, and related duties.

* 12.0299 **Gaming and Sports Officiating Services, Other.** Any instructional program in gaming and sports officiating services not described above.

12.03 **Funeral Services and Mortuary Science.** A group of instructional programs (see 12.0301).

* 12.0301 **Funeral Services and Mortuary Science.** An instructional program that prepares individuals to perform and supervise the embalming and cremation of human corpses, to provide funeral and burial services, and to sell funerary equipment to the public. Includes instruction in applicable anatomical, cosmetic and technical procedures; facilities and equipment management; equipment and services marketing; legal requirements; and professional standards.

12.04 **Cosmetic Services.** A group of instructional programs (see 12.0401)

* 12.0401 **Cosmetic Services, General.** An instructional program that generally prepares individuals to render a variety of beauty and grooming services to the general public.

* 12.0402 **Barber/Hairstylist.** An instructional program that prepares individuals to cut and care for hair and perform facial shaves, with emphasis on hygiene, sanitation, customer relations and barbershop management.

* 12.0403 **Cosmetologist.** An instructional program that prepares individuals to care for and beautify hair, care for complexions and perform manicures, and sell cosmetics in commercial or other beauty establishments, or independently. Includes instruction in hygiene, sanitation, customer relations, and salon management. May also include training and supervising assistants.

* 12.0404 **Electrolysis Technician.** An instructional program that prepares individuals to operate specialized equipment for removing scalp hair, whiskers, body hair, warts, moles, and birthmarks from individuals. Includes instruction in equipment use and maintenance, applications to specific treatments, and customer relations.

* 12.0405 **Massage.** An instructional program that prepares individuals to administer systematic friction, stroking, tapping, slapping and manipulative movements to the human body for therapeutic or relaxation purposes, either independently or under clinical supervision. Includes instruction in any of the various massage disciplines, basic health and first aid principles, customer/patient relations, and applications to specific therapeutic conditions and problems.

* 12.0406 **Make-up Artist.** An instructional program that prepares individuals to apply cosmetics, cosmetic devices, masks and other materials to the human face and body, to enhance or alter appearance. Includes instruction in specific treatments such as facials, manicures, waxings, pedicures, and others; related techniques and equipment; applications to specific purposes such as acting, television broadcasting, and private cosmetic services; and customer/client relations.

------- **Technical Theater/Theater Design and Stagecraft.** (refer to 50.0502)

* 12.0499 **Cosmetic Services, Other.** Any instructional programs in cosmetic services not described above.

12.05 **Culinary Arts and Related Services.** A group of instructional programs that prepare individuals to provide professional food and beverage services in restaurants, bars and other commercial establishments.

----- **Institutional Food Workers and Administrators.** (refer to 20.04 Series)

----- **Hospitality Services Management.** (refer to 52.09 Series)

* 12.0501 **Baker/Pastry Chef.** An instructional program that prepares individuals to serve as professional bakers and pastry specialists in restaurants or other commercial baking establishments. Includes instruction in bread and pastry making, bread and pastry handling and storage, cake and pastry decorating, baking industry operations, product packaging and marketing operations, and counter display and service.

* 12.0502 **Bartender/Mixologist.** An instructional program that prepares individuals to mix and serve alcoholic and nonalcoholic drinks to patrons of bars or other commercial establishments. Includes instruction in standard recipes, cleanliness and safety standards, legal requirements of alcoholic beverage service, and customer relations.

* 12.0503 **Culinary Arts/Chef Training.** An instructional program that prepares individuals to provide professional chef and related cooking services in restaurants and other commercial food establishments. Includes instruction in recipe and menu planning, preparing and cooking of

foods, supervising and training kitchen assistants, the management of food supplies and kitchen resources, aesthetics of food presentation, and familiarity or mastery of a wide variety of cuisines and culinary techniques.

* 12.0504 **Food and Beverage/Restaurant Operations Manager.** An instructional program that prepares individuals to manage and supervise food and beverage service operations, including catering services, banquet management, and executive chef positions. Includes instruction in food and beverage cost control, food and beverage purchasing and storage, restaurant and food services operation, personnel supervision and management, menu planning and event coordination, and the principles of general hospitality industry management and operations.

* 12.0505 **Kitchen Personnel/Cook and Assistant Training.** An instructional program that prepares individuals to serve under the supervision of chefs and other food service professionals as kitchen support staff and commercial food preparation workers. Includes instruction in kitchen organization and operations, sanitation and quality control, basic food preparation and cooking skills, kitchen and kitchen equipment maintenance, and quantity food measurement and monitoring.

------- **Food Sales Operations.** (refer to 08.0906)

* 12.0506 **Meatcutter.** An instructional program that prepares individuals to apply technical knowledge and skills to cut, trim, and prepare carcasses and portions of meat for sale in wholesale, retail, or food-service establishments. Includes instruction in the use of meat-cutting tools; identification of and cutting techniques for different cuts of meat; dressing poultry; processing fish; counter display; and refrigeration and sanitation.

* 12.0507 **Waiter/Waitress and Dining Room Manager.** An instructional program that prepares individuals to serve food to customers in formal or informal settings. Includes instruction in formal rules of serving etiquette, table and counter service, dining room operations and procedures, service personnel supervision and management, food and beverage preparation and presentation, communication skills, business math and procedures, and sanitation.

* 12.0599 **Culinary Arts and Related Service, Other.** Any instructional program in culinary arts and related services not described above.

12.99 **Personal and Miscellaneous Services, Other.** A group of instructional programs (see 12.9999)

* 12.9999 **Personal and Miscellaneous Services, Other.** Any instructional program in personal and miscellaneous services not described above.

13. **EDUCATION.** A summary of groups of instructional programs that describe the theory and practice of learning and teaching, and related research, administrative and support services.

-- **Psychology.** (refer to 42. Series)

-- **Social Sciences and History.** (refer to 45. Series)

13.01 **Education, General.** A group of instructional programs (see 13.0101).

13.0101 **Education, General.** An instructional program that generally describes the theory and practice of learning and teaching; the basic principles of educational psychology; the art of teaching; the planning and administration of educational activities; and the social foundations of education.

13.02 **Bilingual/Bicultural Education.** A group of instructional programs (see 13.0201)

13.0201 **Bilingual/Bicultural Education.** An instructional program that describes the design and provision of teaching and other educational services to bilingual/bicultural children or adults, and/or the design and implementation of educational programs having the goal of producing bilingual/bicultural individuals. Includes preparation to serve as teachers and administrators in bilingual/bicultural education programs.

------- [Bilingual Education Assisting.] (deleted, included under 13.0201)

------- **Teaching English as a Second Language/Foreign Language.** (refer to 13.1401)

------- [Bilingual/Crosscultural Education, Other.] (deleted, included under 13.0201)

13.03 **Curriculum and Instruction.** A group of instructional programs (see 13.0301)

13.0301 **Curriculum and Instruction.** An instructional program that describes the study of the curriculum and related instructional processes and tools, and that may prepare individuals to serve as professional curriculum specialists. Includes instruction in curriculum theory, curriculum design and planning, instructional material design and evaluation, curriculum evaluation, and applications to specific subject-matter, programs or educational levels.

13.04 **Education Administration and Supervision.** A group of instructional programs (see 13.0401)

13.0401 **Education Administration and Supervision, General.** An instructional program that generally describes the study of the principles and techniques of administering a wide variety of schools and other educational organizations and facilities, supervising educational personnel at the school or staff level, and that may prepare individuals as general administrators and supervisors.

13.0402 **Administration of Special Education.** An instructional program that describes the principles and techniques of administering educational facilities and programs provided for children or adults with special learning needs, and that prepares individuals to serve as administrators of such programs. Includes instruction in special education principles, program and facilities planning, personnel management, community and client relations, budgeting and administration, professional standards, and applicable laws and policies.

13.0403 **Adult and Continuing Education Administration.** An instructional program that describes the principles and techniques of administering programs and facilities designed to serve the basic education needs of undereducated adults, or the continuing education needs of adults seeking further or specialized instruction, and that prepares individuals to serve as administrators of such programs. Includes instruction in adult education principles, program and facilities planning, personnel management, community and client relations, budgeting and administration, professional standards, and applicable laws and policies.

13.0404 **Educational Supervision.** An instructional program that prepares individuals to supervise instructional and support personnel at the school building, facility or staff level. Includes instruction in the principles of staffing and organization, the supervision of learning activities, personnel relations, administrative duties related to departmental or unit management, and specific applications to various educational settings and curricula.

13.0405 **Elementary, Middle and Secondary Education Administration.** An instructional program that describes the principles and techniques of elementary, middle or secondary school principalship, and that prepares individuals to serve as principals and other administrative personnel for elementary -, middle- or secondary-level education programs and facilities. Includes instruction in elementary-, middle- or secondary-level education, program and facilities planning, personnel management, community and client relations, budgeting and administration, professional standards, and applicable laws and policies.

13.0406 **Higher Education Administration.** An instructional program that describes the principles and practice of administration in four-year colleges, universities and higher education systems, the study of higher education as an object of applied research, and which may prepare individuals to function as administrators in such settings. Includes instruction in higher education economics and finance; policy and planning studies; curriculum; faculty and labor relations; higher education law; college student services; research on higher education; institutional research; marketing and promotion; and issues of evaluation, accountability and philosophy.

13.0407 **Community and Junior College Administration.** An instructional program that describes the principles and techniques of administering community and junior colleges and related postsecondary systems, the study of community and junior colleges as objects of applied research, and that may prepare individuals to function as administrators in such settings. Includes instruction in community and junior college finance; policy and planning studies; curriculum; faculty and labor relations; higher education law; student services; research on community and junior colleges; institutional research; marketing and promotion; and issues of evaluation, accountability and philosophy.

13.0499 **Education Administration and Supervision, Other.** Any instructional program in education administration and supervision not described above.

13.05 **Educational/Instructional Media Design.** A group of instructional programs (see 13.0501)

13.0501 **Educational/Instructional Media Design.** An instructional program that describes the principles and techniques of creating instructional materials and related educational resources in various media or combinations, such as film, video, recording, text, art, software, and three-dimensional objects, and that prepares individuals to function as instructional media designers. Includes instruction in the techniques specific to creating in various media; the behavioral principles applicable to using various media in learning and teaching; the design, testing and production of instructional materials; and the management of educational/instructional media facilities and programs.

------- **Educational/Instructional Media Technology/Technician.** (refer to 10.0101)

13.06 **Educational Evaluation, Research and Statistics.** A group of instructional programs that describe the application of analytical and evaluation methodologies to educational problems and settings.

13.0601 **Educational Evaluation and Research.** An instructional program that describes the principles and procedures for generating information about educational programs, personnel and methods, and the analysis of such information for planning purposes. Includes instruction in evaluation theory, evaluation research design and planning, administering evaluations and related data collection activities, data reporting requirements, data analysis and interpretation, and related economic and policy issues.

13.0603 **Educational Statistics and Research Methods.** An instructional program that describes the application of statistics to the analysis and solution of educational research problems, and the development of technical designs for research studies. Includes instruction in mathematical statistics, research design, computer applications, instrument design, research methodologies, and applications to research problems in specific education subjects.

------- **Mathematical Statistics.** (refer to 27.0501)

13.0604 **Educational Assessment, Testing and Measurement.** An instructional program that describes the principles and procedures for designing, developing, implementing and evaluating tests and other mechanisms used to measure learning, evaluate student progress, and assess the performance of specific teaching tools, strategies and curricula. Includes instruction in psychometric measurement, instrument design, test implementation techniques, research evaluation, data reporting requirements, and data analysis and interpretation.

------- [Elementary and Secondary Research.] (deleted, included under 13.0601)

------- [Higher Education Research.] (deleted, included under 13.0601)

13.0699 **Educational Evaluation, Research and Statistics, Other.** Any instructional program in educational evaluation, research and statistics not described above.

13.07 **International and Comparative Education.** A group of instructional programs (see 13.0701)

13.0701 **International and Comparative Education.** An instructional program that describes the study of educational phenomena, practices and institutions within different societies and states in comparative perspective, and the study of international educational issues. Includes instruction in comparative research methods, country- or area-specific studies, cross-national studies of learning and teaching styles, international educational policy and development, and analyses of educational migration patterns and experiences.

13.08 **Educational Psychology.** A group of instructional programs (see 13.0802)

------- **School Psychology.** (moved to 42.1701)

13.0802 **Educational Psychology.** An instructional program that describes the application of psychology to the study of the behavior of individuals in the roles of teacher and learner, the nature and effects of learning environments, and the psychological effects of methods, resources, organization and non-school experience on the educational process. Includes instruction in learning theory, human growth and development, research methods, and psychological evaluation.

13.09 **Social and Philosophical Foundations of Education.** A group of instructional programs (see 13.0901)

13.0901 **Social and Philosophical Foundations of Education.** An instructional program that describes the systematic study of education as a social and cultural institution, and the educational process as an object of humanistic inquiry. Includes instruction in such subjects as the philosophy of education, history of education, educational literature, educational anthropology, sociology of education, economics and politics of education, educational policy studies, and studies of education in relation to specific populations, issues, social phenomena, and types of work.

13.10 **Special Education.** A group of instructional programs (see 13.1001)

----- **Psychology.** (refer to 42. Series)

----- **Health and Physical Education/Fitness.** (refer to 31.05 Series)

----- **Communication Disorders Sciences and Services.** (refer to 51.02 Series)

----- **Rehabilitation/Therapeutic Services.** (refer to 51.23 Series)

13.1001 **Special Education, General.** An instructional program that generally describes the design and provision of teaching and other educational services to children or adults with special learning needs or disabilities, and that may prepare individuals to function as special education teachers. Includes instruction in diagnosing learning disabilities, developing individual education plans, teaching and supervising special education students, special education counseling, and applicable laws and policies.

------- **Adapted Physical Education/Therapeutic Recreation.** (refer to 31.0502)

------- [Education of the Culturally Disadvantaged.] (deleted, included under 13.1099)

13.1003 **Education of the Deaf and Hearing Impaired.** An instructional program that describes the study and design of educational services for children or adults with hearing impairments which adversely affect their educational performance, and that may prepare individuals to teach such students. Includes instruction in identifying hearing-impaired students, developing individual education plans, teaching and supervising hearing-impaired students, counseling, and applicable laws and policies.

------- **Audiology/Hearing Sciences.** (refer to 51.0202)

------- **Sign Language Interpreting.** (refer to 51.0205)

13.1004 **Education of the Gifted and Talented.** An instructional program that describes the study and design of educational services for children or adults exhibiting exceptional intellectual, psychomotor or artistic talent or potential, or who exhibit exceptional maturity or social leadership talents, and that may prepare individuals to teach such students. Includes instruction in identifying gifted and talented students, developing individual education plans, teaching and supervising gifted and talented students, counseling, and applicable laws and policies.

13.1005 **Education of the Emotionally Handicapped.** An instructional program that describes the study and design of educational services for children or adults with emotional conditions which adversely affect their educational performance, and that may prepare individuals to teach such students. Includes instruction in identifying emotionally disturbed students, developing individual education plans, teaching and supervising emotionally disturbed students, counseling, and applicable laws and policies.

------- **Clinical Psychology.** (refer to 42.0201)

13.1006 **Education of the Mentally Handicapped.** An instructional program that describes the study and design of educational services for children or adults with mental disabilities which adversely affect their educational performance, and that may prepare individuals to teach such students. Includes instruction in identifying mentally handicapped students, developing individual education plans, teaching and supervising mentally handicapped students, counseling, and applicable laws and policies.

------- **School Psychology.** (refer to 42.1701)

13.1007 **Education of the Multiple Handicapped.** An instructional program that describes the study and design of educational services for children or adults with multiple disabilities which adversely affect their educational performance, and that may prepare individuals to teach such students. Includes instruction in identifying multiple handicapped students, developing individual education plans, teaching and supervising multiple handicapped students, counseling, and applicable laws and policies.

13.1008 **Education of the Physically Handicapped.** An instructional program that describes the study and design of educational services for children or adults with physical disabilities which adversely affect their educational performance, and that may prepare individuals to teach such students. Includes instruction in identifying physically disabled students, developing individual education plans, teaching and supervising physically disabled students, counseling, and applicable laws and policies.

13.1009 **Education of the Blind and Visually Handicapped.** An instructional program that describes the study and design of educational services for children or adults with visual disabilities which adversely affect their educational performance, and that may prepare individuals to teach such students. Includes instruction in identifying visually handicapped students, developing individual education plans, teaching and supervising blind or visually handicapped students, counseling, and applicable laws and policies.

------- [Remedial Education] (deleted, included under 13.1099)

13.1011 **Education of the Specific Learning Disabled.** An instructional program that describes the study and design of educational services for children or adults with specific learning disabilities which adversely affect their educational performance, and that may prepare individuals to teach such students. Includes instruction in identifying specific learning disabled students, developing individual education plans, teaching and supervising students with specific learning disabilities students, counseling, and applicable laws and policies.

------- **School Psychology.** (refer to 42.1701)

13.1012 **Education of the Speech Impaired.** An instructional program that describes the study and design of educational services for children or adults with speech impairments which adversely affect their educational performance, and that may prepare individuals to teach such students. Includes instruction in identifying speech-impaired students, developing individual education plans, teaching and supervising students with speech disabilities, counseling, and applicable laws and policies.

------- **Speech-Language Pathology.** (refer to 51.0203)

13.1013 **Education of the Autistic.** An instructional program that describes the study and design of educational services for children or adults that are autistic, and that prepares individuals to teach such students. Includes instruction in identifying students with autism, developing individual education plans, teaching and supervising autistic students, counseling, and applicable laws and policies.

------- **Clinical Psychology.** (refer to 42.0201)

* 13.1099 **Special Education, Other.** Any instructional program in special education not described above.

13.11 **Student Counseling and Personnel Services.** A group of instructional programs (see 13.1101)

13.1101 **Counselor Education/Student Counseling and Guidance Services.** An instructional program that prepares individuals to apply the theory and principles of guidance and counseling to the provision of support for the personal, social, educational, and vocational development of students, and the organizing of guidance services within elementary, middle and secondary educational institutions. Includes instruction in legal and professional requirements, therapeutic counselor intervention, vocational counseling, and related socio-psychological foundations.

------- **School Psychology.** (refer to 42.1701)

13.1102 **College/Postsecondary Student Counseling and Personnel Services.** An instructional program that describes the organization and provision of counseling, referral, assistance and administrative services to students in postsecondary educational institutions and adult education facilities, and that may prepare individuals to function as professional counselors in such settings. Includes instruction in applicable laws and policies, residential counseling and services, vocational counseling and placement services, remedial skills counseling, and therapeutic counselor intervention.

13.12 **General Teacher Education.** A group of instructional programs that prepares individuals to teach at various educational levels.

* 13.1201 **Adult and Continuing Teacher Education.** An instructional program that prepares individuals to teach adult students in various settings, including basic and remedial education programs, continuing education programs, and programs designed to develop or upgrade specific employment-related knowledge and skills.

* 13.1202 **Elementary Teacher Education.** An instructional program that prepares individuals to teach students in the elementary grades, which may include kindergarten through grade eight, depending on the school system or state regulations. Includes preparation to teach all elementary education subject matter.

13.1203 **Junior High/Intermediate/Middle School Teacher Education.** An instructional program that prepares individuals to teach students in the middle, intermediate or junior high grades, which may include grades four through nine, depending on the school system or state regulations. May include preparation to teach a comprehensive curriculum or specific subject matter.

* 13.1204 **Pre-Elementary/Early Childhood/Kindergarten Teacher Education.** An instructional program that prepares individuals to teach students ranging in age from infancy through eight years (grade three), depending on the school system or state regulations. Includes preparation to teach all relevant subject matter.

13.1205 **Secondary Teacher Education.** An instructional program that prepares individuals to teach students in the secondary grades, which may include grades seven through twelve, depending on the school system or state regulations. May include preparation to teach a comprehensive curriculum or specific subject matter.

13.1206 **Teacher Education, Multiple Levels.** An instructional program that prepares individuals to teach students at more than one educational level, such as a combined program in elementary/secondary, early childhood/elementary, elementary/middle school, or junior high/high school teacher education.

13.1299 **General Teacher Education, Other.** Any instructional program in general teacher education not described above.

13.13 **Teacher Education, Specific Academic and Vocational Programs.** A group of instructional programs that prepare individuals to teach subject matter in specific academic and vocational programs at various educational levels.

----- **Health and Physical Education/Fitness.** (refer to 31.05 Series)

13.1301 **Agricultural Teacher Education (Vocational).** An instructional program that prepares individuals to teach vocational agricultural programs at various educational levels.

------- **Agriculture/Agricultural Sciences, General.** (refer to 02.0101)

------- **Agricultural Extension.** (refer to 02.0102)

13.1302 **Art Teacher Education.** An instructional program that prepares individuals to teach art and art appreciation programs at various educational levels.

------- **Art, General.** (refer to 50.0701)

13.1303 **Business Teacher Education (Vocational).** An instructional program that prepares individuals to teach vocational business programs at various educational levels.

------- **Business, General.** (refer to 52.0101)

13.1304 **Driver and Safety Teacher Education.** An instructional program that prepares individuals to teach driver and safety education programs at various educational levels.

13.1305 **English Teacher Education.** An instructional program that prepares individuals to teach English grammar, composition and literature programs at various educational levels.

------- **English Language and Literature, General.** (refer to 23.0101)

13.1306 **Foreign Languages Teacher Education.** An instructional program that prepares individuals to teach foreign languages programs at various educational levels.

------- **Foreign Languages and Literatures, General.** (refer to 16.0101)

13.1307 **Health Teacher Education.** An instructional program that prepares individuals to teach health education programs at various educational levels.

------- **Health and Physical Education, General.** (refer to 31.0501)

13.1308 **Home Economics Teacher Education (Vocational).** An instructional program that prepares individuals to teach vocational home economics programs at various educational levels.

------- **Personal and Miscellaneous Services.** (refer to 12. Series)

------- **Home Economics, General.** (refer to 19.0101)

------- **Vocational Home Economics.** (refer to entire 20. Series)

13.1309 **Technology Teacher Education/Industrial Arts Teacher Education.** An instructional program that prepares individuals to teach technology education/industrial arts programs at various educational levels.

------- **Technology Education/Industrial Arts.** (refer to 21.0101)

13.1310 **Marketing Operations Teacher Education/Marketing and Distributive Teacher Education (Vocational).** An instructional program that prepares individuals to teach vocational marketing operations/marketing and distributive education programs at various educational levels.

------- **Marketing Operations/Marketing and Distribution.** (refer to 08. Series)

13.1311 **Mathematics Teacher Education.** An instructional program that prepares individuals to teach mathematics programs at various educational levels.

------- **Mathematics.** (refer to 27.0101)

13.1312 **Music Teacher Education.** An instructional program that prepares individuals to teach music and music appreciation programs at various educational levels.

------- **Music, General.** (refer to 50.0901)

------- [Nutritional Education.] (deleted, included under 13.1399)

13.1314 **Physical Education Teaching and Coaching.** An instructional program that prepares individuals to teach physical education programs and/or to coach sports at various educational levels.

------- **Health and Physical Education, General.** (refer to 31.0501)

13.1315 **Reading Teacher Education.** An instructional program that prepares individuals to diagnose reading difficulties and to teach reading programs at various educational levels.

13.1316 **Science Teacher Education, General.** An instructional program that prepares individuals to teach general science programs, or a combination of the biological and physical science subject matter areas, at various educational levels.

------- **Biological and Physical Sciences.** (refer to 30.0101)

13.1317 **Social Science Teacher Education.** An instructional program that prepares individuals to teach specific social sciences subjects and programs at various educational levels.

------- **Psychology, General.** (refer to 42.0101)

------- **Anthropology.** (refer to 45.0201)

------- **Archaeology.** (refer to 45.0301)

------- **Economics, General.** (refer to 45.0601)

------- **Geography.** (refer to 45.0701)

------- **Political Science, General.** (refer to 45.1001)

------- **Sociology.** (refer to 45.1101)

13.1318 **Social Studies Teacher Education.** An instructional program that prepares individuals to teach general social studies programs at various educational levels.

------- **Social Sciences, General.** (refer to 45.0101)

13.1319 **Technical Teacher Education (Vocational).** An instructional program that prepares individuals to teach specific vocational technical education programs at various educational levels.

----- **Forest Production and Processing.** (refer to 03.04 Series)

-- **Engineering-Related Technologies.** (refer to 15. Series)

-- **Science Technologies.** (refer to 41. Series)

13.1320	**Trade and Industrial Teacher Education (Vocational).** An instructional program that prepares individuals to teach specific vocational trades and industries programs at various educational levels.
--	**Personal and Miscellaneous Services.** (refer to 12. Series)
--	**Protective Services.** (refer to 43. Series)
--	**Construction Trades.** (refer to 46. Series)
--	**Mechanics and Repairers.** (refer to 47. Series)
--	**Precision Production and Manufacturing.** (refer to 48. Series)
--	**Transportation and Material Moving.** (refer to 49. Series)
--	**Visual and Performing Arts.** (refer to 50. Series)
13.1321	**Computer Teacher Education.** An instructional program that prepares individuals to teach computer education programs at various educational levels.
-------	**Computer and Information Sciences, General.** (refer to 11.0101)
13.1322	**Biology Teacher Education.** An instructional program that prepares individuals to teach biology programs at various educational levels.
-------	**Biology, General.** (refer to 26.0101)
13.1323	**Chemistry Teacher Education.** An instructional program that prepares individuals to teach chemistry programs at various educational levels.
-------	**Chemistry, General.** (refer to 40.0501)
13.1324	**Drama and Dance Teacher Education.** An instructional program that prepares individuals to teach drama and/or dance programs at various educational levels.
-------	**Dance.** (refer to 50.0301)
-------	**Drama/Theater Arts, General.** (refer to 50.0501)
13.1325	**French Language Teacher Education.** An instructional program that prepares individuals to teach French language programs at various educational levels.
-------	**French Language and Literature.** (refer to 16.0901)
13.1326	**German Language Teacher Education.** An instructional program that prepares individuals to teach German language programs at various educational levels.
-------	**German Language and Literature.** (refer to 16.0501)
13.1327	**Health Occupations Teacher Education (Vocational).** An instructional program that prepares individuals to teach specific vocational health occupations programs at various educational levels.
-----	**Community Health Services.** (refer to 51.03 Series)

----- **Dental Services.** (refer to 51.06 Series)

----- **Health and Medical Administrative Services.** (refer to 51.07 Series)

----- **Health and Medical Assistants.** (refer to 51.08 Series)

----- **Health and Medical Diagnostic and Treatment Services.** (refer to 51.09 Series)

----- **Health and Medical Laboratory Technologies/Technicians.** (refer to 51.10 Series)

----- **Mental Health Services.** (refer to 51.15 Series)

----- **Nursing.** (refer to 51.16 Series)

----- **Ophthalmic/Optometric Services.** (refer to 51.18 Series)

------- **Miscellaneous Health Aides.** (refer to 51.26)

13.1328 **History Teacher Education.** An instructional program that prepares individuals to teach history programs at various educational levels.

------- **History, General.** (refer to 45.0801)

13.1329 **Physics Teacher Education.** An instructional program that prepares individuals to teach physics programs at various educational levels.

------- **Physics, General.** (refer to 40.0801)

13.1330 **Spanish Language Teacher Education.** An instructional program that prepares individuals to teach Spanish language programs at various educational levels.

------- **Spanish Language and Literature.** (refer to 16.0905)

13.1331 **Speech Teacher Education.** An instructional program that prepares individuals to teach speech and language arts programs at various educational levels.

------- **Speech and Rhetorical Studies.** (refer to 23.1001)

13.1399 **Teacher Education, Specific Academic and Vocational Programs, Other.** Any instructional program in teacher education, specific academic and vocational programs not described above.

13.14 **Teaching English as a Second Language/Foreign Language.** A group of instructional programs (see 13.1401).

13.1401 **Teaching English as a Second Language/Foreign Language.** An instructional program that describes the principles and practice of teaching English to students who are not proficient in it or who do not speak, read or write English, and that may prepare individuals to function as teachers and administrators in such programs.

------- **Bilingual/Bicultural Education.** (refer to 13.0201)

13.15 **Teacher Assistant/Aide.** A group of instructional programs (see 13.1501)

* 13.1501 **Teacher Assistant/Aide.** An instructional program that prepares individuals to assist a teacher in regular classroom settings or in providing instruction and supervision to special student populations, such as bilingual/bicultural students, special education students, adult learners, and students learning English. Includes instruction in techniques of general classroom supervision, maintaining order, assisting with lessons and carrying out related assignments.

13.99 **Education, Other.** A group of instructional programs (see 13.9999)

13.9999 **Education, Other.** Any instructional program in education not described above.

14. **ENGINEERING.** A summary of groups of instructional programs that prepares individuals to apply mathematical and scientific principles to the solution of practical problems for the benefit of society.

14.01 **Engineering, General.** A group of instructional programs (see 14.0101)

-- **Mathematics.** (refer to 27. Series)

-- **Physical Sciences.** (refer to 40. Series)

14.0101 **Engineering, General.** An instructional program that generally prepares individuals to apply mathematical and scientific principles to solve a wide variety of practical problems in industry, social organization, public works, and commerce.

------- **Engineering-Related Technology/Technician, General.** (refer to 15.1101)

14.02 **Aerospace, Aeronautical and Astronautical Engineering.** A group of instructional programs (see 14.0201)

14.0201 **Aerospace, Aeronautical and Astronautical Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of aircraft, space vehicles, and their systems; applied research on flight characteristics; and the development of systems and procedures for the launching, guidance, and control of air and space vehicles.

------- **Aeronautical and Aerospace Engineering Technology/Technician.** (refer to 15.0801)

14.03 **Agricultural Engineering.** A group of instructional programs (see 14.0301)

14.0301 **Agricultural Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems, equipment and facilities used to produce, process and store agricultural products; to improve the productivity of agricultural methods; and to develop improved agricultural biological systems.

------- **Food Sciences and Technology.** (refer to 02.0301)

14.04 **Architectural Engineering**. A group of instructional programs (see 14.0401)

14.0401 **Architectural Engineering**. An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of materials, systems, and methods used to construct and equip buildings intended for human habitation or other purposes.

----- **Architecture.** (refer to 04.01 Series)

------- **Architectural Engineering Technology/Technician.** (refer to 15.0101)

14.05 **Bioengineering and Biomedical Engineering**. A group of instructional programs (see 14.0501)

14.0501 **Bioengineering and Biomedical Engineering**. An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of biological and health systems and products such as integrated biological systems, instrumentation, medical information systems, artificial organs and prostheses, and health management and care delivery systems.

------- **Biomedical Engineering Technology/Technician.** (refer to 15.0401)

------- **Occupational Safety and Health Technology/Technician.** (refer to 15.0701)

------- **Biotechnology Research.** (refer to 26.0616)

----- **Biological Technology/Technician.** (refer to 41.0101 Series)

14.06 **Ceramic Sciences and Engineering**. A group of instructional programs (see 14.0601)

14.0601 **Ceramic Sciences and Engineering**. An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of inorganic non-metallic materials, such as porcelains, cements, industrial ceramics, ceramic superconductors, abrasive, and related materials and systems.

14.07 **Chemical Engineering**. A group of instructional programs (see 14.0701)

14.0701 **Chemical Engineering**. An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems employing chemical processes, such as chemical reactors, kinetic systems, electrochemical systems, energy conservation processes, heat and mass transfer systems, and separation processes; and the applied analysis of chemical problems such as corrosion, particle abrasion, energy loss, pollution, and fluid mechanics.

----- **Chemistry.** (refer to 40.05 Series)

------- **Chemical Technology/Technician.** (refer to 41.0301)

14.08 **Civil Engineering**. A group of instructional programs (see 14.0801)

14.0801 **Civil Engineering, General**. An instructional program that generally prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of structural, load-bearing, material moving, transportation, water resource, and material control systems; and related equipment and environmental safety measures.

------- **Civil Engineering/Civil Technology/Technician.** (refer to 15.0201)

14.0802 **Geotechnical Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems for manipulating and controlling surface and subsurface features at or incorporated into structural sites, including earth and rock moving and stabilization, land fills, structural use and environmental stabilization of wastes and by-products, underground construction, and groundwater and hazardous material containment.

14.0803 **Structural Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of materials and systems used in building load-bearing structures for various purposes and in different environments, including buildings, roads, rail lines, bridges, dams, conduits, offshore platforms and work stations, and other structural shells; and the analysis of structural problems such as aging, failure, fabrication, safety, and natural hazards.

------- **Construction/Building Technology/Technician.** (refer to 15.1001)

14.0804 **Transportation and Highway Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of total systems for the physical movement of people, materials and information, including general network design and planning, facilities planning, site evaluation, transportation management systems, needs projections and analysis, and analysis of costs.

------- **Architectural Urban Design and Planning.** (refer to 04.0701)

14.0805 **Water Resources Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems for collecting, storing, moving, conserving and controlling surface- and groundwater, including water quality control, water cycle management, management of human and industrial water requirements, water delivery, and flood control.

14.0899 **Civil Engineering, Other.** Any instructional program in civil engineering not described above.

14.09 **Computer Engineering.** A group of instructional programs (see 14.0901)

14.0901 **Computer Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of computer hardware and software systems and related equipment and facilities; and the analysis of specific problems of computer applications to various tasks.

------- **Computer Science.** (refer to 11.0701)

------- **Computer Engineering Technology/Technician.** (refer to 15.0301)

------- **Computer Maintenance Technology/Technician.** (refer to 15.0402)

14.10 **Electrical, Electronics and Communications Engineering.** A group of instructional programs (see 14.1001)

14.1001 **Electrical, Electronics and Communications Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of electrical, electronic and related communications systems and their components, including electrical power generation systems; and the analysis of problems such as superconduction, wave propagation, energy storage and retrieval, and reception and amplification.

------- **Electrical, Electronic and Communications Engineering Technology/Technician.** (refer to 15.0303)

------- [Microelectronic Engineering.] (deleted, included under 14.1001)

14.11 **Engineering Mechanics.** A group of instructional programs (see 14.1101)

14.1101 **Engineering Mechanics.** An instructional program that generally describes the application of the mathematical and scientific principles of classical mechanics to the analysis and evaluation of the behavior of structures, forces and materials in engineering problems. Includes instruction in statics, kinetics, dynamics, kinematics, celestial mechanics, stress and failure, and electromagnetism.

14.12 **Engineering Physics.** A group of instructional programs (see 14.1201)

14.1201 **Engineering Physics.** An instructional program that generally describes the application of the mathematical and scientific principles of physics to the analysis and evaluation of engineering problems. Includes instruction in high- and low-temperature phenomena, computational physics, superconductivity, applied thermodynamics, molecular and particle physics applications, and space science research.

----- **Physics.** (refer to 40.08 Series)

14.13 **Engineering Science.** A group of instructional programs (see 14.1301)

14.1301 **Engineering Science.** An instructional program that generally describes the application of various combinations of mathematical and scientific principles to the analysis and evaluation of engineering problems, including applied research in human behavior, statistics, biology, chemistry, the earth and planetary sciences, atmospherics and meteorology, and computer applications.

------- **Physical Sciences, General.** (refer to 40.0101)

14.14 **Environmental/Environmental Health Engineering.** A group of instructional programs (see 14.1401)

14.1401 **Environmental/Environmental Health Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems for controlling contained living environments and for monitoring and controlling factors in the external natural environment, including pollution control, waste and hazardous material disposal, health and safety protection, conservation, life support, and requirements for protection of special materials and related work environments.

------- **Environmental Control Technologies.** (refer to 15.05 Series)

------- **Quality Control and Safety Technologies.** (refer to 15.07 Series)

14.15 **Geological Engineering.** A group of instructional programs (see 14.1501)

14.1501 **Geological Engineering.** An instructional program that prepares individuals to apply mathematical and geological principles to the analysis and evaluation of engineering problems, including the geological evaluation of construction sites, the analysis of geological forces acting on structures and systems, the analysis of potential natural resource recovery sites, and applied research on geological phenomena.

------- **Geology.** (refer to 40.0601)

14.16 **Geophysical Engineering.** A group of instructional programs (see 14.1601)

14.1601 **Geophysical Engineering.** An instructional program that prepares individuals to apply mathematical, geophysical and planetary principles to the analysis and evaluation of engineering problems, including gravitational and magnetic forces, time and space factors, celestial mass and motion, and their relation to questions of control, movement, function and design in earthbound and space systems.

------- **Geophysics and Seismology.** (refer to 40.0603)

------- **Earth and Planetary Sciences.** (refer to 40.0703)

14.17 **Industrial/Manufacturing Engineering.** A group of instructional programs (see 14.1701)

14.1701 **Industrial/Manufacturing Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of integrated systems for managing industrial production processes, including the optimization of human work factors, efficiency engineering, logistics and material flow, just-in-time manufacturing, industrial quality control, automation, cost analysis, and production coordination.

------- **Industrial/Manufacturing Technology/Technician.** (refer to 15.0603)

14.18 **Materials Engineering.** A group of instructional programs (see 14.1801)

14.1801 **Materials Engineering.** An instructional program that prepares individuals to apply mathematical and materials science principles to the design, development and operational evaluation of materials and related processes used in manufacturing in a wide variety of settings; the synthesis of new industrial materials, including marrying and bonding composites; analysis of materials requirements and specifications; and related problems of system design dependent on materials factors.

------- **Materials Sciences.** (refer to 14.3101)

14.19 **Mechanical Engineering.** A group of instructional programs (see 14.1901)

14.1901 **Mechanical Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of physical systems used in manufacturing and end-product systems used for specific uses,

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including machine tools, jigs and other manufacturing equipment; stationary power units and appliances; engines; self-propelled vehicles; housings and containers; hydraulic and electric systems for controlling movement; and the integration of computers and remote control with operating systems.

------- **Mechanical Engineering/Mechanical Technology/Technician.** (refer to 15.0805)

14.20 **Metallurgical Engineering.** A group of instructional programs (see 14.2001)

14.2001 **Metallurgical Engineering.** An instructional program that prepares individuals to apply mathematical and metallurgical principles to the design, development and operational evaluation of metal components of structural, load-bearing, power, transmission, and moving systems; and the analysis of engineering problems such as stress, creep, failure, alloy behavior, environmental fluctuations, stability, electromagnetic and thermodynamic characteristics, optimal manufacturing processes, and related design considerations.

------- **Metallurgical Technology/Technician.** (refer to 15.0611)

------- **Metallurgy.** (refer to 40.0701)

14.21 **Mining and Mineral Engineering.** A group of instructional programs (see 14.2101)

14.2101 **Mining and Mineral Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of mineral extraction, processing and refining systems, including open pit and shaft mines, prospecting and site analysis equipment and instruments, environmental and safety systems, mine equipment and facilities, mineral processing and refining methods and systems, and logistics and communications systems.

------- **Mining Technology/Technician.** (refer to 15.0901)

14.22 **Naval Architecture and Marine Engineering.** A group of instructional programs (see 14.2201)

14.2201 **Naval Architecture and Marine Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of self-propelled, stationary, or towed vessels operating on or under the water, including inland, coastal and ocean environments; and the analysis of related engineering problems such as corrosion, power transfer, pressure, hull efficiency, stress factors, safety and life support, communications and sensing, environmental hazards and factors, and specific use requirements.

14.23 **Nuclear Engineering.** A group of instructional programs (see 14.2301)

14.2301 **Nuclear Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems for controlling and manipulating nuclear energy, including nuclear power plant design, fission reactor design, fusion reactor design, reactor control and safety systems design, power transfer systems, containment vessels and structures design; and the analysis of related engineering problems such as fission and fusion processes, human and environmental factors, construction, and operational considerations.

------- **Nuclear Physics.** (refer to 40.0806)

------- **Nuclear/Nuclear Power Technology/Technician.** (refer to 41.0205)

14.24 **Ocean Engineering.** A group of instructional programs (see 14.2401)

14.2401 **Ocean Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems to monitor, control, manipulate and operate within coastal or ocean environments, such as underwater platforms, flood control systems, dikes, hydroelectric power systems, tide and current control and warning systems, and communications equipment; the planning and design of total systems for working and functioning in water or underwater environments; and the analysis of related engineering problems such as the action of water properties and behavior on physical systems and people, tidal forces, current movements, and wave motion.

------- **Oceanography.** (refer to 40.0702)

14.25 **Petroleum Engineering.** A group of instructional programs (see 14.2501)

14.2501 **Petroleum Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems for locating, extracting, processing and refining crude petroleum and natural gas, including prospecting instruments and equipment, mining and drilling systems, processing and refining systems and facilities, storage facilities, transportation systems, and related environmental and safety systems.

------- **Petroleum Technology/Technician.** (refer to 15.0903)

----- [Surveying and Mapping Science.] (deleted)

------- **Surveying.** (moved to 15.1103)

------- **Cartography.** (moved to 45.0702)

14.27 **Systems Engineering.** A group of instructional programs (see 14.2701)

14.2701 **Systems Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of total systems solutions to a wide variety of engineering problems, including the integration of human, physical, energy, communications, management, and information requirements as needed, and the application of requisite analytical methods to specific situations.

------- **Computer Science.** (refer to 11.0701)

------- **Systems Science and Theory.** (refer to 30.0601)

14.28 **Textile Sciences and Engineering.** A group of instructional programs (see 14.2801)

14.2801 **Textile Sciences and Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems to test and manufacture fibers and fiber products, both synthetic and natural; to develop new and improved fibers, textiles and their uses; and to the analysis of related engineering problems such as structural factors, molecular synthesis, chemical manufacturing, weaves, strength and stress, useful life, dyes, and applications to composite systems.

14.29 **Engineering Design.** A group of instructional programs (see 14.2901)

14.2901 **Engineering Design.** An instructional program that prepares individuals to apply mathematical and scientific principles to engineering problems involving marrying or coordinating multiple dissimilar systems to carry out single functions or achieve common purposes, organizing system components for maximum flexibility and utility, planning engineering projects involving multiple tasks and design solutions, planning design testing and evaluation procedures, resolving specification and requirement conflicts, and choosing among competing theoretical solutions.

------- **Industrial Design.** (refer to 50.0404)

14.30 **Engineering/Industrial Management.** A group of instructional programs (see 14.3001)

14.3001 **Engineering/Industrial Management.** An instructional program that describes the application of engineering principles to the planning and operational management of enterprises and organizations, including budgeting, costing, quality control, efficient resource allocation and utilization, product production and distribution, human resource management, systems and plant maintenance, scheduling, storage and security, organization planning, acquisitions, and logistics.

------- **Business Administration and Management.** (refer to 52.02 Series)

14.31 **Materials Science.** A group of instructional programs (see 14.3101)

14.3101 **Materials Science.** An instructional program that generally describes the application of mathematical and scientific principles to the analysis and evaluation of the characteristics and behavior of solids, including internal structure, chemical properties, transport and energy flow properties, thermodynamics of solids, stress and failure factors, chemical transformation states and processes, compound materials, and research on industrial applications of specific materials.

------- **Materials Engineering.** (refer to 14.1801)

14.32 **Polymer/Plastics Engineering.** A group of instructional programs (see 14.3201)

14.3201 **Polymer/Plastics Engineering.** An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of synthesized macromolecular compounds and their application to specific engineering uses, including the development of industrial materials with tailored properties, the design of lightweight structural components, the use of liquid or solid polymers, and the analysis and control of polymerization processes.

------- **Plastics Technology/Technician.** (refer to 15.0607)

------- **Polymer Chemistry.** (refer to 40.0507)

14.99 **Engineering, Other.** A group of instructional programs (see 14.9999)

14.9999 **Engineering, Other.** Any instructional program in engineering not described above.

15. **ENGINEERING-RELATED TECHNOLOGIES.** A summary of groups of instructional programs that prepare individuals to apply basic engineering principles and technical skills in support of engineering and related projects.

-- **Engineering.** (refer to 14. Series)

15.01 **Architectural Engineering Technology.** A group of instructional programs (see 15.0101)

* 15.0101 **Architectural Engineering Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of architects, engineers and planners engaged in designing and developing buildings, urban complexes, and related systems. Includes instruction in design testing procedures, building site analysis, model building and computer graphics, engineering drawing, structural systems testing, analysis of prototype mechanical and interior systems, test equipment operation and maintenance, and report preparation.

------- [Architectural Interior Design Technology.] (deleted, included under 15.0101)

------- [Architectural Technologies, Other.] (deleted, included under 15.0101)

15.02 **Civil Engineering/Civil Technology.** A group of instructional programs (see 15.0201)

* 15.0201 **Civil Engineering/Civil Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of civil engineers engaged in designing and executing public works projects such as highways, dams, bridges, tunnels and other facilities. Includes instruction in site analysis, structural testing procedures, field and laboratory testing procedures, plan and specification preparation, test equipment operation and maintenance, and report preparation.

------- [Drafting and Design Technology/Technician]. (deleted, included under 48.0101)

------- **Surveying and Mapping Technology.** (moved to 15.1103)

------- [Urban Planning Technology.] (deleted, included under 15.0201)

------- [Civil Technologies, Other.] (deleted, included under 15.0201)

15.03 **Electrical and Electronic Engineering-Related Technology.** A group of instructional programs that prepare individuals to apply basic engineering principles and technical skills in support of engineering, research and industrial applications of electricity, lasers, and computers.

* 15.0301 **Computer Engineering Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of computer engineers engaged in designing and developing computer systems and installations. Includes instruction in computer electronics and programming, prototype development and testing, systems installation and testing, solid state and microminiature circuitry, peripheral equipment, and report preparation.

------- [Electrical Engineering-Related Technology.] (deleted, included under 15.0303)

* 15.0303 **Electrical, Electronic and Communications Engineering Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of electrical, electronics and communication engineers. Includes instruction in electrical circuitry, prototype development and testing; systems analysis and testing, systems maintenance, instrument calibration, and report preparation.

* 15.0304 **Laser and Optical Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using lasers and other optical for commercial or research purposes. Includes instruction in laser and optical principles, testing and maintenance procedures, safety precautions, specific applications to various tasks, and report preparation.

* 15.0399 **Electrical and Electronic Engineering-Related Technologies/Technicians, Other.** Any instructional program in electrical and electronic engineering-related technologies not described above.

15.04 **Electromechanical Instrumentation and Maintenance Technology.** A group of instructional programs that prepare individuals to apply basic engineering and technical skills in support of engineers and other professionals engaged in developing and using industrial systems relying on electrical power.

* 15.0401 **Biomedical Engineering-Related Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in developing biological or medical systems and products. Includes instruction in instrument calibration, design and installation testing, system safety and maintenance procedures, procurement and installation procedures, and report preparation.

* 15.0402 **Computer Maintenance Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of professionals who use computer systems. Includes instruction in basic computer design and architecture, programming, problems of specific computer applications, component and system maintenance and inspection procedures, hardware and software problem diagnosis and repair, and report preparation.

------- **Computer Installer and Repairer.** (refer to 47.0104)

* 15.0403 **Electromechanical Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in developing and testing automated, servomechanical, and other electromechanical systems. Includes instruction in prototype testing, manufacturing and operational testing, systems analysis and maintenance procedures, and report preparation.

* 15.0404 **Instrumentation Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in developing control and measurement systems and procedures. Includes instruction in instrumentation design and maintenance, calibration, design and production testing and scheduling, automated equipment functions, applications to specific industrial tasks, and report preparation.

------- **Instrument Calibration and Repairer.** (refer to 47.0401)

* 15.0405 **Robotics Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using robots. Includes instruction in the principles of robotics,

design and operational testing, system maintenance and repair procedures, robot computer systems and control language, specific system types and applications to specific industrial tasks, and report preparation.

* 15.0499 **Electromechanical and Instrumentation and Maintenance Technologies/Technicians, Other.** Any instructional program in electromechanical instrumentation and maintenance technologies not described above.

15.05 **Environmental Control Technologies.** A group of instructional programs that prepare individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in environmental protection and the development of environmental systems.

* 15.0501 **Heating, Air Conditioning and Refrigeration Technologies/Technicians.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using air conditioning, refrigeration, and heating systems. Includes instruction in principles of heating and cooling technology, design and operational testing, inspection and maintenance procedures, installation and operation procedures, and report preparation.

-------- **Heating, Air Conditioning and Refrigeration Mechanic and Repairer.** (refer to 47.0201)

-------- [Air Pollution Control Technology.] (deleted, included under 15.0599)

* 15.0503 **Energy Management and Systems Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing energy-efficient systems or monitoring energy use. Includes instruction in principles of energy conservation, instrumentation calibration, monitoring systems and test procedures, energy loss inspection procedures, energy conservation techniques, and report preparation.

-------- [Sanitation Technology.] (deleted, included under 15.0506)

* 15.0505. **Solar Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing solar-powered energy systems. Includes instruction in solar energy principles, energy storage and transfer technologies, testing and inspection procedures, system maintenance procedures, and report preparation.

* 15.0506 **Water Quality and Wastewater Treatment Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using water storage, water power, and wastewater treatment systems. Includes instruction in water storage, power and/or treatment systems and equipment; appropriate testing and inspection procedures; appropriate system maintenance procedures; and report preparation.

* 15.0507 **Environmental and Pollution Control Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using indoor and outdoor environmental pollution control systems, and in disposing of hazardous materials. Includes instruction in environmental safety principles, biohazard identification, testing and sampling procedures, laboratory techniques, instrumentation calibration, hazardous waste disposal procedures and systems, safety and protection procedures, equipment maintenance, and report preparation.

* 15.0599 **Environmental Control Technologies/Technicians, Other.** Any instructional program in environmental control technologies not described above.

15.06 **Industrial Production Technologies.** A group of instructional programs that prepare individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using industrial processes.

------- [Food Processing Technology.] (deleted, included under 15.0699)

* 15.0603 **Industrial/Manufacturing Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using industrial manufacturing systems and processes. Includes instruction in design and prototype testing, instrument calibration, operational and maintenance procedures, operational diagnosis and repair, applications to specific systems and products, and report preparation.

------- [Optical Technology.] (deleted, included under 15.0699)

* 15.0607 **Plastics Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using industrial polymers. Includes instruction in the principles of macromolecular chemistry, polymerization and plastic manufacturing processes and equipment, design and operational testing procedures, equipment maintenance and repair procedures, safety procedures, applications to specific products, and report preparation.

------- [Textile Technology.] (deleted, included under 15.0699)

------- [Welding Technology.] (deleted, included under 15.0699)

* 15.0611 **Metallurgical Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and metallurgists engaged in developing and using industrial metals and manufacturing processes. Includes instruction in principles of metallurgy, related manufacturing systems, laboratory techniques, testing and inspection procedures, instrument calibration, system and equipment maintenance and repair, applications to specific processes, and report preparation.

------- **Industrial Radiologic Technology/Technician.** (refer to 41.0204)

* 15.0699 **Industrial Production Technologies/Technicians, Other.** Any instructional program in industrial production technologies not described above.

15.07 **Quality Control and Safety Technologies.** A group of instructional programs that prepare individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in monitoring product quality and the health and safety of the work place.

* 15.0701 **Occupational Safety and Health Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in maintaining job-related health and safety standards. Includes instruction in safety engineering principles, inspection and monitoring procedures, testing and sampling procedures, laboratory techniques, applications to specific work environments, and report preparation.

* 15.0702 **Quality Control Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in maintaining consistent manufacturing and construction standards. Includes instruction in quality control systems management principles, technical standards applicable to specific engineering and manufacturing projects, testing procedures, inspection procedures, related instrumentation and equipment operation and maintenance, and report preparation.

* 15.0799 **Quality Control and Safety Technologies/Technicians, Other.** Any instructional program in quality control and safety technologies not described above.

15.08 **Mechanical Engineering-Related Technologies.** A group of instructional programs that prepare individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing mechanical systems.

* 15.0801 **Aeronautical and Aerospace Engineering Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing, manufacturing and testing aircraft, spacecraft and their systems. Includes instruction in aircraft/spacecraft systems technology, design and development testing, prototype and operational testing, inspection and maintenance procedures, instrument calibration, test equipment operation and maintenance, and report preparation.

------- **Aviation Systems and Avionics Maintenance Technologist/Technician.** (refer to 47.0609)

* 15.0803 **Automotive Engineering Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing, manufacturing and testing self-propelled ground vehicles and their systems. Includes instruction in vehicular systems technology, design and development testing, prototype and operational testing, inspection and maintenance procedures, instrument calibration, test equipment operation and maintenance, and report preparation.

------- **Auto/Automotive Mechanic/Technician.** (refer to 47.0604)

------- [Marine Propulsion Technology.] (deleted, included under 15.0899)

* 15.0805 **Mechanical Engineering/Mechanical Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in the design and development phases of a wide variety of projects involving mechanical systems. Includes instruction in principles of mechanics, applications to specific engineering systems, design testing procedures, prototype and operational testing and inspection procedures, manufacturing system testing procedures, test equipment operation and maintenance, and report preparation.

* 15.0899 **Mechanical Engineering-Related Technologies/Technicians, Other.** Any instructional program in mechanical engineering-related technologies not described above.

15.09 **Mining and Petroleum Technologies.** A group of instructional programs that prepare individuals to apply basic principles of engineering and technical skills in support of engineers and other professionals engaged in locating and extracting mineral and petroleum resources.

* 15.0901 **Mining Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals

engaged in the development and operation of mines and related mineral processing facilities. Includes instruction in principles of mineral extraction and related geology, mineral field mapping and site analysis, testing and sampling methods, instrument calibration, assay analysis, test equipment operation and maintenance, mine environment and safety monitoring procedures, mine inspection procedures, and report preparation.

------- [Mining (Excluding Coal) Technology.] (deleted, included under 15.0901)

* 15.0903 **Petroleum Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in the development and operation of oil and natural gas extraction and processing facilities. Includes instruction in principles of petroleum extraction and related geology, petroleum field mapping and site analysis, testing and sampling methods, instrument calibration, laboratory analysis, test equipment operation and maintenance, environment and safety monitoring procedures for oil/gas fields and facilities, facility inspection procedures, and report preparation.

* 15.0999 **Mining and Petroleum Technologies/Technicians, Other.** Any instructional program in mining and petroleum engineering-related technologies not described above.

15.10 **Construction/Building Technology.** A group of instructional programs (see 15.1001).

* 15.1001 **Construction/Building Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers, engineering contractors and other professionals engaged in the construction of buildings and related structures. Includes instruction in basic structural engineering principles and construction techniques, building site inspection, site supervision, construction personnel supervision, plan and specification interpretation, supply logistics and procurement, applicable building codes, and report preparation.

------- **Architectural Engineering Technology.** (refer to 15.0101)

------- **Construction/Building Inspector.** (refer to 46.0403)

15.11 **Miscellaneous Engineering-Related Technologies.** A group of instructional programs (see 15.1101)

* 15.1101 **Engineering Technology/Technician, General.** An instructional program that generally prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in a wide variety of projects. Includes instruction in various engineering support functions for research, production, and operations, and applications to specific engineering specialties.

* 15.1102 **Surveying.** An instructional program that prepares individuals to apply mathematical and scientific principles to the delineation, determination, planning and positioning of land tracts, land and water boundaries, land contours and features; and the preparation of related maps, charts and reports. Includes instruction in applied geodesy, computer graphics, photointerpretation, plane and geodetic surveying, mensuration, traversing, survey equipment operation and maintenance, instrument calibration, and basic cartography.

* 15.1103 **Hydraulics Technology/Technician.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using fluid power and transportation systems. Includes instruction in fluid mechanics and hydraulics principles, fluid power systems, pipeline and pumping systems, design and operational testing, inspection and maintenance procedures, related

instrumentation, and report preparation.

15.99 **Engineering-Related Technologies, Other.** A group of instructional programs (see 15.9999)

* 15.9999 **Engineering-Related Technologies/Technicians, Other.** Any instructional program in engineering-related technologies not described above.

16. **FOREIGN LANGUAGES AND LITERATURES.** A summary of groups of instructional programs that describe the study of languages other than English, and the study of related aspects of foreign literatures and cultures.

-- **Area, Ethnic and Cultural Studies.** (refer to 05. Series)

-- **English Language and Literature/Letters.** (refer to 23. Series)

16.01 **Foreign Languages and Literatures.** A group of instructional programs (see 16.0101)

16.0101 **Foreign Languages and Literatures, General.** An instructional program that describes an undifferentiated program in foreign languages and literatures.

------- **Foreign Languages Teacher Education.** (refer to 13.1306)

------- **Comparative Literature.** (refer to 23.0301)

16.0102 **Linguistics.** An instructional program that describes the scientific and scholarly study of language and the relationships among languages. Includes instruction in psycholinguistics, anthropological linguistics, historical linguistics, mathematical linguistics, grammatical theory, philosophy of language, philology, sociolinguistics, language and culture studies, and the study of written scripts and their evolution.

16.0103 **Foreign Language Interpretation and Translation.** An instructional program that prepares individuals to translate written documents, or to consecutively or simultaneously interpret oral communications. Includes instruction in translating and/or interpreting from a specific foreign language into English, from English into another specific language, or between two foreign languages.

----- [African (Non-Semitic) Languages.] (deleted)

------- [African (Non-Semitic) Languages.] (deleted, included under 16.9999)

16.03 **East and Southeast Asian Languages and Literatures.** A group of instructional programs that describe the study of the languages, literatures, and cultures of East and Southeast Asian peoples.

------- **East Asian Studies.** (refer to 05.0104)

------- **Southeast Asian Studies.** (refer to 05.0113)

16.0301 **Chinese Language and Literature.** An instructional program that describes the study of the language, literature, and culture of Chinese-speaking peoples, including dialects such as Cantonese, Taiwanese, and Mandarin.

16.0302 **Japanese Language and Literature.** An instructional program that describes the study of the language, literature, and culture of Japanese-speaking peoples.

16.0399 **East and Southeast Asian Languages and Literatures, Other.** Any instructional program in East and Southeast Asian languages and literatures not described above, such as Korean, Tibetan, Mongolian, Tagalog, Thai, Lao, Vietnamese, Cambodian, Indonesian/Malay, Burmese or others.

16.04 **East European Languages and Literatures.** A group of instructional programs that describe the study of the languages, literatures, and cultures of the peoples of Eastern Europe, including Russia, the Baltic Coast, Middle Europe, and the Balkans.

------- **European Studies.** (refer to 05.0106)

------- **Eastern European Area Studies.** (refer to 05.0105)

------- **Russian and Slavic Area Studies.** (refer to 05.0110)

16.0402 **Russian Language and Literature.** An instructional program that describes the study of the language, literature, and culture of Russian-speaking peoples.

16.0403 **Slavic Languages and Literatures (Other than Russian).** An instructional program that describes the study of one or more of the languages, literatures and cultures of the non-Russian Slavic peoples, including such languages as Byelorussian, Bulgarian, Czech, Polish, Serbo-Croatian, Old Slavonic and Ukrainian.

16.0499 **East European Languages and Literatures, Other.** Any instructional program in East European languages and literatures not described above, such as Finnish, Hungarian, Estonian, Latvian and Lithuanian.

16.05 **Germanic Languages and Literatures.** A group of instructional programs that describe the study of the languages, literatures, and cultures of peoples speaking Germanic languages other than English.

------- **European Studies.** (refer to 05.0106)

------- **Western European Studies.** (refer to 05.0114)

16.0501 **German Language and Literature.** An instructional program that describes the study of the language, literature, and culture of German-speaking peoples, including related dialects such as Low German, Swiss-German, and Old or Middle German.

------- **German Language Teacher Education.** (refer to 13.1326)

16.0502 **Scandinavian Languages and Literatures.** An instructional program that describes the study of the languages, literatures, and cultures of the Scandinavian peoples, including Danish, Icelandic, Norwegian, Swedish, and Old Norse.

------- **Scandinavian Area Studies.** (refer to 05.0111)

16.0599 **Germanic Languages and Literatures, Other.** Any instructional program in Germanic languages and literatures not described above, such as Yiddish, Dutch, Flemish, Old German, Frisian, Gothic and Saxon.

16.06 **Greek Language and Literature (Modern).** A group of instructional programs that describe the study of the language, literature, and culture of Greek-speaking peoples.

------- **European Studies.** (refer to 05.0106)

------- **Greek Language and Literature (Ancient and Medieval).** (refer to 16.1202)

16.0601 **Greek Language and Literature (Modern).** An instructional program that describes the study of the language, literature, and culture of modern Greece, generally comprising the period from the fall of Byzantium in 1453 to the present.

16.07 **South Asian Languages and Literatures.** A group of instructional programs (see 16.0703)

16.0703 **South Asian Languages and Literatures.** An instructional program that describes the study of the languages, literatures and cultures of peoples of South Asia, including such languages as Hindi, Urdu, Bengali, Punjabi, and the Dravidian group, and ancestral languages such as Sanskrit, Pali and Bactrian.

------- **South Asian Studies.** (refer to 05.0112)

16.09 **Romance Languages and Literatures.** A group of instructional programs that describe the languages, literatures, and cultures of peoples speaking languages descended from Latin dialects and their modern derivatives.

------- **African Studies.** (refer to 05.0101)

------- **European Studies.** (refer to 05.0106)

------- **Latin American Studies.** (refer to 05.0107)

------- **Western European Studies.** (refer to 05.0114)

16.0901 **French Language and Literature.** An instructional program that describes the study of the language, literature, and culture of French-speaking peoples, including related languages and dialects such as Creole, Provencal and Walloon.

------- **French Language Teacher Education.** (refer to 13.1325)

16.0902 **Italian Language and Literature.** An instructional program that describes the study of the language, literature, and culture of Italian-speaking peoples, including dialects and related languages such as Sicilian, Friulian and Sardinian.

------- Latin (moved to 16.1203)

16.0904 **Portuguese Language and Literature.** An instructional program that describes the study of the language, literature, and culture of Portuguese-speaking peoples, including the Luso-Brazilian and African dialects.

16.0905 **Spanish Language and Literature.** An instructional program that describes the study of the language, literature, and culture of Spanish-speaking peoples, including related or derived dialects and languages such as Catalan, Castilian, and various Latin American dialects.

------- **Spanish Language Teacher Education. (refer to 13.1330)**

16.0999 **Romance Languages and Literatures, Other.** Any instructional program in Romance languages not described above, such as Romanian and Rhaeto-Romansch.

----- [Native American Languages.] (deleted)

------- [Native American Languages.] (deleted, included under 16.9999)

16.11 **Middle Eastern Languages and Literatures.** A group of instructional programs that describes the languages, literatures, and cultures of peoples of the Middle East, including Turkey, the Arabian Peninsula, Iran, the Fertile Crescent and Semitic North Africa.

------- **Middle Eastern Studies.** (refer to 05.0108)

16.1101 **Arabic Language and Literature.** An instructional program that describes the study of the language, literature, and culture of Arabic-speaking peoples, including Classical, Modern Standard, and related dialects and derivatives.

------- **Islamic Studies.** (refer to 05.0204)

16.1102 **Hebrew Language and Literature.** An instructional program that describes the study of the language, literature, and culture of Hebrew-speaking peoples, including promodern and modern Hebrew dialects and derivatives.

------- **Jewish/Judaic Studies.** (refer to 05.0205)

------- **Classical and Ancient Near Eastern Languages and Literatures.** (refer to 16.12 Series)

------- **Biblical and Other Theological Languages and Literatures.** (refer to 39.0101)

16.1199 **Middle Eastern Languages and Literatures, Other.** Any instructional program in Middle Eastern languages and literatures not described above, including such languages as Farsi (Iranian), Turkish, Berber and Armenian.

16.12 **Classical and Ancient Near Eastern Languages and Literatures.** A group of instructional programs that describe the study of the languages, literatures and cultures of the Greek- and Latin-speaking peoples of the ancient and Medieval West, and of the peoples of the Pre-Islamic Near East.

16.1201 **Classics and Classical Languages and Literatures.** An instructional program that describes the study of the languages, literatures and general civilization of the classical Greco-Roman world, including both ancient Greek and Latin, and related studies.

------- **Archaeology.** (refer to 45.0301)

------- **Art History, Criticism and Conservation.** (refer to 50.0703)

16.1202 **Greek Language and Literature (Ancient and Medieval).** An instructional program that describes the study of the language, literature and culture of the ancient and Medieval Greeks, including Archaic Greece, Classical Greece, the Hellenistic World, Byzantium, and related studies.

16.1203 **Latin Language and Literature (Ancient and Medieval).** An instructional program that describes the study of the language, literature and culture of the ancient and Medieval Latin-speaking peoples, including Classical Roman Latin, related ancient Italic dialects and languages, Medieval Latin and derivatives, and related studies.

-------- **Medieval and Renaissance Studies.** (refer to 30.1301)

-------- **Biblical and Other Theological Languages and Literatures.** (refer to 39.0101)

16.1299 **Classical and Ancient Near Eastern Languages and Literatures, Other.** Any instructional program in Classical and ancient Near Eastern languages and literatures not described above, such as Ancient Egyptian/Egyptology, Coptic, Avestan (Old Persian), Akkadian, Aramaic, Ugaritic, Syriac, Phoenician, Hittite and Hurrian, Sumerian, Luwian, Yemeni, Elamite, Cretan, and Urartian.

16.99 **Foreign Languages and Literatures, Other.** A group of instructional programs (see 16.9999)

16.9999 **Foreign Languages and Literatures, Other.** Any instructional program in foreign languages and literatures not described above, including language groups and individual languages such as the non-Semitic African languages, Native American languages, the Celtic languages, Pacific language groups, the Ural-Altaic languages, Basque, and others.

-- **ALLIED HEALTH.** (moved to 51. HEALTH SCIENCES AND ALLIED HEALTH SERVICES

-- **HEALTH SCIENCES.** (moved to 51. HEALTH SCIENCES AND ALLIED HEALTH SERVICES)

19. **HOME ECONOMICS.** A summary of groups of instructional programs that describe the relationship of the physical, social, emotional, and intellectual environments to the development of individuals, homes and families, and the effects of these factors on society and the workplace.

19.01 **Home Economics, General.** A group of instructional programs (see 19.0101)

19.0101 **Home Economics, General.** An instructional program that generally describes the study of the relationship between the physical, social, emotional, and intellectual environment and the health and wellness of individuals and families.

-------- **Home Economics Education.** (refer to 13.1308)

19.02 **Home Economics Business Services.** A group of instructional programs (see 19.0201)

19.0201 **Business Home Economics.** An instructional program that describes the relationship between the economic environment and the home and family, including instruction in consumption theory and practices, production and distribution of goods and services, and resource uses as these pertain to family resource management and the consumer in the economic system.

19.0202 **Home Economics Communications.** An instructional program that describes the communication of home economics subject matter and information to a variety of audiences through print and/or non-print media. Includes instruction in the management of home economics-related communications services and materials.

19.03 **Family and Community Studies.** A group of instructional programs (see 19.0301)

19.0301 **Family and Community Studies.** An instructional program that describes the study of the cultural, social, and technological influences on families in changing societies, including family programs and support services.

19.04 **Family/Consumer Resource Management.** A group of instructional programs that describes the concepts, skills and processes through which decisions about the use and management of resources are made at the individual and family levels, as well as research on general consumer behavior.

19.0401 **Family Resource Management Studies.** An instructional program that describes the study of the processes used by families and households in balancing needs and wants and in maximizing the use of available resources. Includes instruction in human behavior, management theory, household planning, financial instruments and planning, and family resource consultative services.

19.0402 **Consumer Economics and Science.** An instructional program that describes the systematic study of the concepts and skills pertaining to consumer behavior in relation to the social, political and economic components of market environments; and strategies and methods for responding to identified problems. Includes instruction in consumer activities and behavior which affect the individual, the family, society and the workplace.

19.0499 **Family/Consumer Resource Management, Other.** An instructional program in family/consumer resource management not described above.

19.05 **Foods and Nutrition Studies.** A group of instructional programs (see 19.0501)

19.0501 **Foods and Nutrition Studies, General.** An instructional program that generally describes the study of the role of food and nutrition in individual and family health and wellness, and in the study of food production, preparation and service operations. Includes instruction in food product consumption, nutritional care and education, and the organization and administration of food systems.

19.0502 **Foods and Nutrition Science.** An instructional program that describes the scientific study of the chemical, physical and sensory properties of human food; food preservation and safety; nutritional quality; food processing and preparation; food use and diet applications; and food-related logistics management and marketing.

-------- **Food Science.** (refer to 02.0301)

19.0503 **Dietetics/Human Nutritional Services.** An instructional program that describes the provision of nutritional services, menu planning and diet consultation for individuals, families and institutions. Includes instruction in planning and directing food service activities, diet and nutrition analysis and plan formulation, food preparation management, client education and related services.

-------- **Dietetic Assistant.** (refer to 20.0404)

-------- **Medical Dietician.** (refer to 51.2702)

19.0505 **Food Systems Administration.** An instructional program that describes the principles and practices relating to the administration of institutional food service systems. Includes instruction in service design and organization, resource acquisition and management, personnel resources management and human behavior, and consumer economics.

------- **Institutional Food Services Administration.** (refer to 20.0409)

19.0599 **Foods and Nutrition Studies, Other.** Any instructional program in foods and nutrition studies not described above.

19.06 **Housing Studies.** A group of instructional programs (see 19.0601)

19.0601 **Housing Studies, General.** An instructional program that generally describes the study of the behavioral, social, economic, functional and aesthetic aspects of housing and other environments. Includes instruction in planning, designing, furnishing, and equipping households, and the behavioral, developmental, public policy, and cultural issues related to households.

-------- [Household Equipment.] (deleted, included under 19.0601)

19.0603 **Interior Environments.** An instructional program that describes the planning and analysis of interior home environments relative to function and quality as related to individual, family and social development and behavior. Includes instruction in the design of environments and interiors, space utilization, furnishing and equipment -- from the standpoint of enhancing habitability and the quality of life and work.

------- **Interior Design.** (refer to 50.0408)

19.0699 **Housing Studies, Other.** Any instructional program in housing studies not described above.

19.07 **Individual and Family Development Studies.** A group of instructional programs (see 19.0701)

19.0701 **Individual and Family Development Studies, General.** An instructional program that generally describes the study of the developmental and behavioral characteristics of the individual, within the context of the family, across the life span.

19.0703 **Family and Marriage Counseling.** An instructional program that describes the study of the factors affecting marital relationships, parent-child relationships, and the functioning of the family as a whole; the study of separation, divorce and remarriage, death, exceptional children, and health and wellness; and the application of therapeutic intervention strategies in appropriate situations.

------- **Counseling Psychology.** (refer to 42.0601)

19.0704 **Family Life and Relations Studies.** An instructional program that describes the study of the family unit as it evolves across the lives of its members, with emphasis on identifying and analyzing family structures, family member roles and functions, family interactions, and family conflicts.

19.0705 **Gerontological Services.** An instructional program that describes the study of the characteristics, attitudes, behavior and needs of older people in family settings, and the methods of organizing services for them. Includes instruction in providing dependent care; serving the physical, social, economic, and psychological needs and concerns of the elderly; related legislation; and community resources.

------- **Gerontology.** (refer to 30.1101)

19.0706 **Child Growth, Care and Development Studies.** An instructional program that describes the study of the intellectual, social, emotional and physical growth of children from birth through adolescence, and the administration and supervision of services to children and their families. Includes instruction in providing dependent care; related social, behavioral and biological sciences; and management theory and practice.

------- **Developmental and Child Psychology.** (refer to 42.0701)

19.0799 **Individual and Family Development Studies, Other.** Any instructional program in individual and family development studies not described above.

19.09 **Clothing/Apparel and Textile Studies.** A group of instructional programs (see 19.0901)

19.0901 **Clothing/Apparel and Textile Studies.** An instructional program that describes the study of contemporary and historical ways of meeting psychological, sociological, economic, and physiological needs relative to clothing and textile products, including techniques of design, production, distribution, marketing and consumption.

------- **Fashion Design and Illustration.** (moved to 50.0407)

------- **Fashion Merchandising.** (refer to 08.0102)

------- [Textile Science.] (deleted, included under 19.0901)

------- **Textile Sciences and Engineering.** (refer to 14.2801)

------- [Textiles, Apparel and Clothing Studies, Other.] (deleted, included under 19.0901)

19.99 Home Economics, Other. A group of instructional programs (see 19.9999)

* 19.9999 **Home Economics, Other.** Any instructional program in home economics not described above.

20. **VOCATIONAL HOME ECONOMICS.** A summary of groups of instructional programs that describe competencies in home economics which prepare individuals for the occupation of homemaking, for paid employment, and for organizing and managing business undertakings and services.

----- **Consumer and Homemaking Education.** (moved to **CHAPTER II**)

20.02 **Child Care and Guidance Workers and Managers.** A group of instructional programs (see 20.0201)

* 20.0201 **Child Care and Guidance Workers and Managers, General.** An instructional program that generally prepares individuals for occupations in child care and guidance in institutional and residential family settings, often under the supervision of professional personnel. Includes instruction in child growth and development; nutrition; recreation, play and learning activities planning and supervision; child abuse and neglect prevention; parent-child relationships; and applicable legal and administrative requirements.

* 20.0202 **Child Care Provider/Assistant.** An instructional program that prepares individuals to be primary providers of home-, family-, residential- or institutional-based child care services. Includes instruction in planning, organizing and conducting meaningful play and learning activities; child monitoring and supervision; record-keeping; and referral procedures.

*	20.0203	**Child Care Services Manager.** An instructional program that prepares individuals to develop and manage effective child care programs and facilities. Includes instruction in the management of financial operations; selecting and developing facilities; selecting staff and staffing patterns; providing for staff development opportunities; developing a total program for children; and working with parents, community organizations and others concerned with children.
	-------	[Foster Care/Family Care.] (deleted, included under 20.0202)
*	20.0299	**Child Care and Guidance Workers and Managers, Other.** Any instructional program in child care and guidance management and services not described above.
20.03		**Clothing, Apparel and Textile Workers and Managers.** A group of instructional programs (see 20.0301)
*	20.0301	**Clothing, Apparel and Textile Workers and Managers, General.** An instructional program that generally prepares individuals for occupations concerned with the entire spectrum of clothing, apparel, and textiles management, production, and services, including but not limited to construction; fabric and fabric care; pattern design; principles in clothing construction and selection; fitting and alterations of ready-to-wear garments; custom tailoring; clothing maintenance; and textiles testing.
	-------	[Clothing Maintenance Aide.] (deleted, included under 20.0301)
*	20.0303	**Commercial Garment and Apparel Worker.** An instructional program that prepares individuals to construct ready-to-wear garments and apparel. Includes instruction in developing and preparing patterns for standardized sizes; selecting appropriate fabric; cutting of fabric with commercial cutting equipment; stitching fabric on commercial power sewing equipment; applying finishes and notions to garments and apparel; and pressing and packing garments or apparel.
	-------	[Custom Apparel/Garment Seamstress.] (deleted, included under 20.0305)
*	20.0305	**Custom Tailor.** An instructional program that prepares individuals to design, construct, alter, and repair men's, women's and children's garments and apparel. Includes instruction in tailoring design, fabric selection, customizing to customer specifications; taking measurements and fitting; preparing patterns; cutting, sewing, altering, refitting and adjusting; operation of hand and power equipment; and pressing and smoothing seams.
*	20.0306	**Fashion and Fabric Consultant.** An instructional program that prepares individuals to assist in apparel and fashion selection, style coordination, customer sales and consulting, fabric selection, clothing specifications, and contract buying activities. Includes instruction in supplying regular clothing needs or acting as a consultant for special events such as weddings.
	-------	[Wedding/Specialty Consulting.] (deleted, included under 20.0306)
*	20.0309	**Drycleaner and Launderer.** An instructional program that prepares individuals to perform clothing and apparel cleaning services and to operate and manage laundry and drycleaning facilities. Includes instruction in routine clothing repairs, fabric identification, spot removing and special cleaning, dyeing and bleaching, ironing and pressing, equipment operation and maintenance, and business management.
*	20.0399	**Clothing, Apparel and Textile Workers and Managers, Other.** Any instructional program in clothing, apparel, and textiles management, production, and services not described above.

20.04 **Institutional Food Workers and Administrators.** A group of instructional programs (see 20.0401)

----- **Culinary Arts and Related Services.** (refer to 12.05 Series)

* 20.0401 **Institutional Food Workers and Administrators.** An instructional program that generally prepares individuals in managerial, production, and service skills used in governmental, commercial, or independently owned institutional food establishments and related food industry occupations. Includes instruction in planning, selecting, storing, purchasing, preparing, and serving food and food products; basic nutrition, sanitation, and food safety; the use and care of commercial equipment; serving techniques; and the operation of institutional food establishments.

  ------- **Food and Beverage/Restaurant Operations Manager.** (refer to 12.0504)

  ------- **Kitchen Personnel/Cook and Assistant Training.** (refer to 12.0505)

  ------- **Baker/Pastry Chef.** (moved to 12.0501)

  ------- **Culinary Arts/Chef Training.** (moved to 12.0503)

* 20.0404 **Dietician Assistant.** An instructional program that prepares individuals to assist registered dieticians in planning, preparing and serving meals to individuals with specific dietary needs. Includes instruction in equipment use, food preparation, diet regulations, food handling, safety and sanitary standards and administrative techniques and procedures.

* 20.0405 **Food Catering.** An instructional program that prepares individuals to book, plan and manage the preparation food and services for special occasions. Includes instruction in arranging for equipment, decorations, entertainment, and transportation of food and equipment to the site of the event.

  ------- [Food Service.] (deleted, included under 20.0409)

  ------- [School Food Service.] (deleted, included under 20.0409)

* 20.0409 **Institutional Food Services Administrator.** An instructional program that prepares individuals to manage and supervise institutional food service operations, including school food services and other government-regulated food service operations. Includes instruction in management, purchasing and storage, food preparation, staff supervision, diet and menu planning, and sanitation and safety.

  ------- **Food and Beverage/Restaurant Operations Manager.** (refer to 12.0504)

  ------- **Food Systems Administration.** (refer to 19.0505)

* 20.0499 **Institutional Food Workers and Administrators.** Any instructional program in institutional food preparation, administration and related services not described above.

20.05 **Home Furnishings and Equipment Installers and Consultants.** A group of instructional programs (see 20.0501)

* 20.0501 **Home Furnishings and Equipment Installers and Consultants.** An instructional program that generally prepares individuals to assist in the entire spectrum of home furnishings and decorations. Includes instruction in selecting, purchasing, designing, and decorating; home furnishings and equipment; floral design; accessory construction; textiles; and upholstery.

* 20.0502 **Window Treatment Maker and Installer.** An instructional program that prepares individuals to design, construct and/or install custom window treatments in residential and commercial facilities. Includes instruction in selecting textiles, fabrics and finishes; selecting appropriate types of window treatments; and constructing and installing of these treatments.

------- [Custom Slipcovering and Upholstering.] (deleted, included under 20.0501)

------- [Floral Design.] (deleted, included under 20.0501)

------- [Home Decorating.] (deleted, included under 20.0599)

------- [Home Furnishings Aide.] (deleted, included under 20.0501)

------- [Home-Service Assisting.] (deleted, include under 20.0501)

* 20.0599 **Home Furnishings and Equipment Installers and Consultants.** Any instructional program in home furnishings and equipment management, production and services not described above.

20.06 **Custodial, Housekeeping and Home Services Workers and Managers.** A group of instructional programs (see 20.0601)

* 20.0601 **Custodial, Housekeeping and Home Services Workers and Managers, General.** An instructional program that generally prepares individuals for occupations relating to commercial housekeeping and cleaning operations; and for providing housekeeping services to paying clients and to homebound individuals.

* 20.0602 **Elder Care Provider/Companion.** An instructional program that prepares individuals to assist elderly individuals in managing their personal and social needs, and their business affairs; to assist the elderly in the maintenance of independent living arrangements; and to promote the well-being of the elderly.

------- [Consumer Aide/Assisting.] (deleted, included under 20.0601)

* 20.0604 **Custodian/Caretaker.** An instructional program that prepares individuals to clean and care for buildings, including their fixtures, furnishings, floor surfaces, and wall coverings. Includes instruction in equipment operation and maintenance, chemical and non-chemical cleaning operations, sanitation, safety, staff supervision and the management of custodial businesses and services.

* 20.0605 **Executive Housekeeper.** An instructional program that prepares individuals to provide comprehensive cleaning and housekeeping services for institutions and to supervise and manage such services. Includes instruction in floor maintenance and care; walls, woodwork, and window cleaning; furnishings and equipment maintenance; laundry and linen services; supply ordering and storage; and record-keeping.

* 20.0606 **Homemaker's Aide.** An instructional program that prepares individuals to assist homemakers in the management and operation of the home, including child and convalescent care, cleaning and maintenance, supplies purchasing and food preparation.

* 20.0699 **Custodial, Housekeeping and Home Services Workers and Manager, Other.** Any instructional program in institutional, home management, and supporting programs not described above.

20.99 **Vocational Home Economics, Other.** A group of instructional programs (see 20.9999)

* 20.9999 **Vocational Home Economics, Other.** Any instructional program in vocational home economics not described above.

-- TECHNOLOGY EDUCATION/INDUSTRIAL ARTS. (moved to **Chapter III - TECHNOLOGY EDUCATION/INDUSTRIAL ARTS)**

22. **LAW AND LEGAL STUDIES.** A summary of groups of instructional programs that describe the theory, history and application of the rules of conduct by which societal relations are formally structured and adjudicated.

22.01 **Law and Legal Studies.** A group of instructional programs that describe the theory, history and application of the rules of conduct by which societal relations are formally structured and adjudicated.

22.0101 **Law (L.L.B., J.D.)** An instructional program that prepares individuals for the independent professional practice of law and for advanced research in jurisprudence. Includes instruction in the theory and practice of the legal system, including the statutory, administrative and judicial components of civil and criminal law.

22.0102 **Pre-Law Studies.** An instructional program that prepares individuals for admission to a first-professional program in law.

* 22.0103 **Paralegal/Legal Assistant.** An instructional program that prepares individuals to perform research, drafting, investigatory, record-keeping and related administrative functions under the supervision of an attorney. Includes instruction in legal research, drafting legal documents, appraising, pleading, courthouse procedures and legal specializations.

------- **Legal Administrative Assistant/Secretary.** (refer to 52.0403)

22.0104 **Juridical Science/Legal Specialization (LL.M., M.C.L., J.S.D., S.J.D.).** An instructional program that prepares attorneys and law school graduates for advanced technical specialization in legal research and practice in law, including such specializations as Tax Law, International Law, Comparative Law, Admiralty, Patents, Contracts, and others.

22.0199 **Law and Legal Studies, Other.** Any instructional program in law and legal studies not described above.

23. **ENGLISH LANGUAGE AND LITERATURE/LETTERS.** A summary of groups of instructional programs that describe the structure and use of the English language and dialects, speech, writing, and various aspects of the literatures and cultures of the English-speaking peoples.

-- **Foreign Language and Literatures.** (refer to 16. Series)

23.01 **English Language and Literature, General.** A group of instructional programs (see 23.0101).

----- **Dramatic/Theater Arts and Stagecraft.** (refer to 50.05 Series)

23.0101 **English Language and Literature, General.** An instructional program that generally describes the English language, including its history, structure and related communications skills; and the literature and culture of English-speaking peoples.

------- **English Teacher Education.** (refer to 13.1305)

------- **Drama/Theater Arts, General.** (refer to 50.0501)

----- [Classics.] (deleted)

------- **Classics.** (moved to 16.0102)

23.03 **Comparative Literature.** A group of instructional programs (see 23.0301)

23.0301 **Comparative Literature.** An instructional program that describes the study of the literatures of different societies and linguistic groups in comparative perspective, including analyses of cross-cultural influences, national literary styles, the influence of translation, and the shared international literary heritage. Includes instruction in the study of literatures in the original languages as well as in English translation.

23.04 **English Composition.** A group of instructional programs (see 23.0401)

23.0401 **English Composition.** An instructional program that describes the principles of English vocabulary, grammar, morphology, syntax and semantics; and techniques of selecting, developing, arranging, combining and expressing ideas in appropriate written forms.

23.05 **English Creative Writing.** A group of instructional programs (see 23.0501)

23.0501 **English Creative Writing.** An instructional program that describes the process and techniques of original composition in various literary forms such as the short story, poetry, the novel, and others. Includes instruction in technical and editorial skills, criticism, and the marketing of finished manuscripts.

------- **Playwriting and Screenwriting.** (refer to 50.0504)

----- [Linguistics (Includes Phonetics, Semantics and Philology).] (deleted)

------- **Linguistics.** (moved to 16.0102)

23.07 **American Literature (United States).** A group of instructional programs (see 23.0701)

23.0701 **American Literature (United States).** An instructional program that describes the study of the literature and literary development, both formal and folkloric, of the United States from the Colonial Era to the present. Includes instruction in period and genre studies, author studies, literary criticism, and regional and oral traditions.

23.08 **English Literature (British and Commonwealth).** A group of instructional programs (see 23.0801)

23.0801 **English Literature (British and Commonwealth).** An instructional program that describes the study of the literatures and literary developments of the English-speaking peoples of the British Isles and the British Commonwealth, from the origins of English to the present. Includes instruction in period and genre studies, author studies, country and regional specializations, literary criticism, and the study of folkloric traditions.

23.10 **Speech and Rhetorical Studies.** A group of instructional programs (see 23.1001)

23.1001 **Speech and Rhetorical Studies.** An instructional program that describes the study of human interpersonal communication from the scientific/behavioral and humanistic perspectives. Includes instruction in the theory and physiology of speech, the history of discourse, the structure and analysis of argument and types of public speech, the social role of speech, oral interpretation of literature, interpersonal interactions, and the relation of speech to nonverbal and other forms of message exchanges.

------- **Communications, General.** (refer to 09.0101)

------- **Speech Teacher Education.** (refer to 13.1331)

------- **Acting and Directing.** (refer to 50.0503)

------- **Communication Disorders, General.** (refer to 51.0201)

23.11 **English Technical and Business Writing.** A group of instructional programs (see 23.1101)

23.1101 **English Technical and Business Writing.** An instructional program that describes the theory, methods, and skills needed for writing and editing scientific, technical and business papers and monographs.

------- **Advertising.** (refer to 09.0201)

------- **Journalism.** (refer to 09.0401)

------- **Public Relations and Organizational Communications.** (refer to 09.0501)

------- **Home Economics Communications.** (refer to 19.0202)

----- [English as a Second Language.] (deleted)

------- [English as a Second Language.] (deleted, included under 13.1401)

23.99 **English Language and Literature/Letters, Other.** A group of instructional programs (see 23.9999)

23.9999 **English Language and Literature/Letters, Other.** Any instructional program in English language and literature not described above.

24. **LIBERAL ARTS AND SCIENCES, GENERAL STUDIES AND HUMANITIES.** A summary of groups of instructional programs that describe general programs and independent or individualized studies in the liberal arts subjects, the humanities disciplines and the general curriculum.

24.01 **Liberal Arts and Sciences, General Studies and Humanities.** A group of instructional programs (see 24.0101)

24.0101 **Liberal Arts and Sciences/Liberal Studies.** An instructional program that describes a structured combination of the arts, biological and physical sciences, social sciences, and humanities, emphasizing breadth of study. Includes instruction in either independently designed, individualized, or regular programs.

24.0102 **General Studies.** An instructional program that describes either undifferentiated study for traditional students or continuing education opportunities for adult learners.

24.0103 **Humanities/Humanistic Studies.** An instructional program that describes combined studies and research in the humanities subjects as distinguished from the social and physical sciences, emphasizing languages, literatures, art, music, philosophy and religion.

24.0199 **Liberal Arts and Sciences, General Studies and Humanities, Other.** Any instructional program in liberal arts and sciences, general studies and humanities not described above.

25. **LIBRARY SCIENCE.** A summary of groups of instructional programs that describe the knowledge and skills required to manage and/or maintain libraries and related information and record systems, collections and facilities for research and general use.

25.01 **Library Science/Librarianship.** A group of instructional programs (see 25.0101)

25.0101 **Library Science/Librarianship.** An instructional program that describes the knowledge and skills required to develop, organize, store, retrieve, administer, and facilitate the use of collections of information in such formats as books, documents, manuscripts, machine-readable data bases, filmed and recorded materials, and that prepares individuals for professional service as librarians and information consultants.

------- **Public/Applied History and Archival Administration.** (refer to 48.0805)

----- [Archival Science.] (deleted)

------- [Archival Science.] (deleted, included under 45.0805)

25.03 **Library Assistant.** A group of instructional programs (see 25.0301)

* 25.0301 **Library Assistant.** An instructional program that prepares individuals to assist professional librarians. Includes instruction in principles, systems, processes, and procedures of library operation; library resources and services; processes of acquisition, cataloging, storage, and display systems; discovery and retrieval of requested materials; management of books, periodicals, and other documents.

----- **Library Science.** (moved to 25.01)

----- **Museology.** (moved to 30.14)

25.99 **Library Science, Other.** A group of instructional programs (see 25.9999)

25.9999 **Library Science, Other.** Any instructional program in library science not described above.

26. **BIOLOGICAL SCIENCES/LIFE SCIENCES.** A summary of groups of instructional programs that describe the scientific study of living organisms and their systems.

26.01 **Biology, General.** A group of instructional programs (see 26.0101)

26.0101 **Biology, General.** An instructional program that generally describes the scientific study of the structure, function, reproduction, growth, heredity, evolution, behavior and distribution of living organisms, and their relations to their natural environments.

------- **Biology Teacher Education.** (refer to 13.1322)

26.02 **Biochemistry and Biophysics.** A group of instructional programs (see below)

------- [Biochemistry and Biophysics.] (deleted, included under either 26.0202 or 26.0203)

26.0202 **Biochemistry.** An instructional program that describes the chemical processes of living organisms. Includes instruction in the chemical mechanisms of genetic information storage and transmission; the chemistry of cell components; blood chemistry; the chemistry of biological systems and biological products; and the chemistry of life processes such as respiration, digestion and reproduction.

------- **Medical Biochemistry.** (refer to 51.1302)

26.0203 **Biophysics.** An instructional program that describes the application of physics principles to the study of living cells and organisms, including structures and fine structures, bioelectric phenomena, radiation effects, molecular behavior, photosynthesis, membranes, organic thermodynamics, and quantitative analysis and modelling.

------- **Bioengineering and Biomedical Engineering.** (refer to 14.0501)

------- **Medical Biophysics.** (refer to 51.1304)

26.03 **Botany.** A group of instructional programs (see 26.0301)

26.0301 **Botany, General.** An instructional program that generally describes the scientific study of plants, related bacteria, fungi, and algae life forms. Includes instruction in the classification, structure, function, reproduction, growth, heredity, evolution, and the pathology of plant life, with particular attention to basic processes such as photosynthesis, plant biochemistry and plant ecosystems.

------- **Plant Sciences, General.** (refer to 02.0401)

------- **Bacteriology.** (moved to 26.0501)

------- **Plant Genetics.** (moved to 26.0613)

26.0305 **Plant Pathology.** An instructional program that describes the nature, causes, development and treatment of plant diseases. Includes instruction in the nature and behavior of disease causal agents, including other life forms and non-biological factors; the study of chemistry and physics of basic pathogens; disease host behaviors; and the development and analysis of disease control and treatment agents.

------- **Agricultural Plant Pathology.** (refer to 02.0406)

26.0307 **Plant Physiology.** An instructional program that describes the scientific study of plant functions and life processes, including such metabolic processes as photosynthesis, respiration, assimilation, and transpiration; and plant systems, including movement, reproduction, digestion and anatomical system functions.

-------- **Agricultural Plant Physiology.** (refer to 02.0407)

26.0399 **Botany, Other.** Any instructional program in botany not described above.

26.04 **Cell and Molecular Biology.** A group of instructional programs that describe the cell as a unit of organization in plans and animals, and the molecular structure and processes of living organisms.

26.0401 **Cell Biology.** An instructional program that describes the scientific study of the cell as a biological system in plants and animals. Includes instruction in cellular structure and function, biosynthesis, enzyme production, cell communication and nutrition, chromosome organization and function, cell life cycles, and cell pathology.

-------- **Medical Cell Biology.** (refer to) 51.1305)

26.0402 **Molecular Biology.** An instructional program that describes the scientific study of the molecular structures and processes that underlie the storage and transmission of genetic information, of energy storage and transfer, of hormone generation, and of basic life process such as development, growth and aging.

------- **Medical Molecular Biology.** (refer to 51.1309)

26.0499 **Cell and Molecular Biology, Other.** Any instructional program in cell and molecular biology not described above.

26.05 **Microbiology/Bacteriology.** A group of instructional programs (see 26.0501)

26.0501 **Microbiology/Bacteriology.** An instructional program that describes the scientific study of microorganisms, including bacteria and viruses, as distinguished from the cellular components of larger organisms. Includes instruction in the ecological behavior of microorganisms, their anatomy and physiology, pathogenesis, and microbe evolution and mutation.

------- **Medical Microbiology.** (refer to 51.1308)

26.06 **Miscellaneous Biological Specializations.** A group of instructional programs that describe specialized areas of the biological sciences not pertaining exclusively to botany, zoology, microbiology, cell and molecular biology, or related physical sciences.

26.0601 **Anatomy.** An instructional program that describes the scientific study of the structure and function of living organisms, tissues, organs, and systems. Includes instruction in gross anatomy, histology, ultrastructure, neuroanatomy, microscopy, dissection, electrical and atomic analytical methods, and quantification methods.

------- **Medical Anatomy.** (refer to 51.1301)

------- [Biometrics and Biostatistics.] (deleted, included under either 26.0614 or 26.0615)

26.0603 **Ecology.** An instructional program that describes the scientific study of ecological systems and the physical interactions among system components. Includes instruction in population biology, large and small ecosystems, environmental factors affecting organisms, evolution and extinction, and symbiotic relationships.

------- **Environmental Science/Studies.** (refer to 03.0102)

------- [Embryology.] (deleted, included under 26.0699)

------- [Endocrinology.] (deleted, included under 26.0699)

------- [Histology.] (deleted, included under 26.0699)

26.0607 **Marine/Aquatic Biology.** An instructional program that describes the scientific study of marine organisms and their environments. Includes instruction in freshwater and saltwater organisms, physiological and anatomical marine adaptations, ocean and freshwater ecologies, marine microbiology, marine mammalogy, ichthyology, marine botany, and biochemical products of marine life used by humans.

26.0608 **Neuroscience.** An instructional program that describes the scientific study of the anatomy, physiology, biophysics, biochemistry, molecular biology and behavior roles of neuron cells and biological nervous systems. Includes instruction in neurological signaling, neuroanatomy and brain research, neuropharmacology, and neuropsychological research.

------- **Medical Neurobiology.** (refer to 51.1310)

26.0609 **Nutritional Sciences.** An instructional program that describes the scientific study of the biological processes by which organisms ingest, digest and use the chemical compounds vital to survival, and which cannot be synthesized by the organism itself. Includes instruction in nutritional biochemistry and biophysics, anatomy and physiology of digestive systems, environmental and behavioral aspects of nutrition, and studies of the nutritional problems of specific organisms.

------- **Agricultural Animal Nutrition.** (refer to 02.0204)

------- **Food Sciences and Technology.** (refer to 02.0301)

------- **Medical Nutrition.** (refer to 51.1311)

------- **Foods and Nutrition Science.** (refer to 19.0502)

26.0610 **Parasitology.** An instructional program that describes the scientific study of organisms living on or within biological hosts, their behavioral interactions with host organisms, and defenses against parasitical infestations. Includes instruction in parasitical evolution and community behavior, parasite metabolism, immunization processes, drug development, and drug reactions.

26.0611 **Radiation Biology/Radiobiology.** An instructional program that describes scientific study of the effects of radiation on organisms and biological systems. Includes instruction in particle physics, ionization, biophysics of radiation perturbations, cellular and organismic repair systems, genetic and pathological effects of radiation, and the measurement of radiation dosages.

26.0612 **Toxicology.** An instructional program that describes the scientific study of the nature, source, effects, identification and characteristics of poisons, toxic substances, and exogenous chemical agents and their effect on biological organisms. Includes instruction in environmental biology, chemico-physiological mechanisms, genetic toxicology, studies of specific organisms and habitats, and the development of toxic defenses and antidotes.

------ **Medical Toxicology.** (refer to 51.1314)

26.0613 **Genetics, Plant and Animal.** An instructional program that describes the scientific study of biological inheritance and variation in organisms, and the mechanisms of gene behavior. Includes instruction in molecular genetics, mutation, gene expression, specification, cloning, the study of inherited diseases and disorders, breeding, genetic biochemistry and biophysics, gene transference, and gene modification.

------- **Agricultural Animal Breeding and Genetics.** (refer to 02.0202)

------- **Agricultural Plant Breeding and Genetics.** (refer to 02.0405)

------- **Medical Genetics.** (refer to 51.1306)

26.0614 **Biometrics.** An instructional program that describes quantitative measurement methods in the biological and related sciences; the development of biometrics solutions to specific research problems; and related computer applications. Includes instruction in algebraic analysis, matrix algebra, computer methods, and applications to specific biological subdisciplines.

------- **Medical Biomathematics and Biometrics.** (refer to 51.1303)

26.0615 **Biostatistics.** An instructional program that describes the application of statistical methods and techniques to the study of living organisms and biological systems. Includes instruction in experimental design and data analysis, projection methods, descriptive statistics, and specific applications to biological subdisciplines.

------- **Health and Medical Biostatistics.** (refer to 51.2204)

26.0616 **Biotechnology Research.** An instructional program that describes the application of the biological sciences to the development of medical and industrial products and processes, and the methods and equipment used in these procedures. Includes instruction in genetic engineering, cell technology, protein synthesis, applied biology, artificial enzyme production, biomaterial development, and drug therapy mechanisms.

------- **Bioengineering and Biomedical Engineering.** (refer to 14.0501)

26.0617 **Evolutionary Biology.** An instructional program that describes the scientific study of the generation of organismic traits and of shared traits across taxonomic classifications, and the refinement of related theory and experimental methods. Includes instruction in the process of heredity, genetic mutation and variation, phenotype determination, ecological determinants of species survival and adaptation, population genetics, taxonomic classification, developmental biology, and paleontology.

-------- **Paleontology.** (refer to 40.0604)

26.0618 **Biological Immunology.** An instructional program that describes the scientific study of organismic responses to, and defenses against, invasive foreign substances and parasitical life forms. Includes instruction in the anatomy and physiology of immune systems, auto-immune responses, disease response mechanisms and triggers, antigen receptors, membrane transfer, the histocompatibility complex, immunogenetics, immunochemistry, and immune system regulation.

-------- **Medical Immunology.** (refer to 51.1307)

26.0619 **Virology.** An instructional program that describes the scientific study of viruses, a group of parasitical subcellular biologic entities. Includes instruction in viral classification, genetic effects of viral infestations, viral genome and phonemes, viruses as cancer agents, viral applications in genetic research and engineering, and the development of antiviral drugs and other therapies.

26.0699 **Miscellaneous Biological Specializations, Other.** Any instructional program in miscellaneous biological specializations, not described above.

26.07 **Zoology.** A group of instructional programs that describe the scientific study of animals, including their structure, reproduction, growth, heredity, evolution, behavior, and distribution.

26.0701 **Zoology, General.** An instructional program that generally describes the scientific study of animals, including their structure, reproduction, growth, heredity, evolution, behavior, and distribution.

-------- **Animal Sciences.** (refer to 02.02 Series)

26.0702 **Entomology.** An instructional program that describes the scientific study of insects, including life cycle, morphology, physiology, ecology, taxonomy, population dynamics, genetics, and ecosystem relations. Includes instruction in the biological and chemical control of insects, and the development of insecticide agents.

-------- **Plant Protection (Pest Management).** (refer to 02.0408)

-------- [Genetics, Human and Animal.] (deleted, included under 26.0613)

26.0704 **Pathology, Human and Animal.** An instructional program that describes the scientific study of the nature, causes, and development of human and animal diseases, and the mechanisms of disease infestation and transfer. Includes instruction in human and animal pathobiology, disease morphology, disease biochemistry, physiology of disease and cell injury, and immunopathology.

-------- **Medical Pathology.** (refer to 51.1312)

26.0705 **Pharmacology, Human and Animal.** An instructional program that describes the scientific study of the therapeutic and toxic effects of drugs on living tissues and entire organisms. Includes instruction in pharmacodynamic behavior, drug metabolism, chemical pharmacology, the physiological effects of chemical substances on human beings and animals, therapeutic applications, chemical profile analysis, and rational drug design.

------- **Medical Pharmacology and Pharmaceutics.** (refer to 51.2003)

26.0706 **Physiology, Human and Animal.** An instructional program that describes the scientific study of organismic and systemic function and behavior in humans and animals, including processes such as respiration, circulation, digestion, excretion, and reproduction.

------- **Agricultural Animal Physiology.** (refer to 02.0205)

------- **Medical Physiology.** (refer to 51.1313)

26.0799 **Zoology, Other.** Any instructional program in zoology not described above.

26.99 **Biological Sciences/Life Sciences, Other.** A group of instructional programs (see 26.9999)

26.9999 **Biological Sciences/Life Sciences, Other.** Any instructional program in biological sciences not described above.

27. **MATHEMATICS.** A summary of groups of instructional programs that describe the systematic study of logical symbolic language and its applications.

27.01 **Mathematics.** A group of instructional programs (see 27.0101)

27.0101 **Mathematics.** An instructional program that describes the rigorous analysis of quantities, magnitudes, forms, and their relationships, using symbolic logic and language. Includes instruction in algebra, calculus, functional analysis, geometry, number theory, logic, topology and other mathematical specializations.

------- **Mathematics Teacher Education.** (refer to 13.1311)

------- **Philosophy.** (refer to 38.0101)

----- [Actuarial Science.] (deleted)

------- **Actuarial Science.** (moved to 52.0802)

27.03 **Applied Mathematics.** A group of instructional programs (see 27.0301)

------- **Engineering, General.** (refer to 14.0101)

------- **Physical Sciences, General.** (refer to 40.0101)

------- **Business Quantitative Methods and Management Science.** (refer to 52.13 Series)

27.0301 **Applied Mathematics, General.** An instructional program that describes the application of mathematical principles to the solution of functional area problems, using the knowledge base of the subject or field for which the analytical procedures are being developed. Includes instruction in computer-assisted mathematical analysis and the development of tailored algorithms for solving specific research problems.

------- **Computer Science.** (refer to 11.0701)

------- **Educational Assessment, Testing and Measurement.** (refer to 13.0604)

------- **Biometrics.** (refer to 26.0614)

------- **Mathematics and Computer Science.** (refer to 30.0801)

------- **Econometrics and Quantitative Economics.** (refer to under 45.0603)

------- **Medical Biomathematics and Biometrics.** (refer to 51.1303)

------- **Accounting, General.** (refer to 52.0301)

27.0302 **Operations Research.** An instructional program that describes the development and application of complex mathematical or simulation models to solve problems involving operational systems, where the system concerned is subject to human intervention. Includes instruction in advanced multivariate analysis, application of judgment and statistical tests, optimization theory and techniques, resource allocation theory, mathematical modelling, control theory, statistical analysis, and applications to specific research problems.

27.0399 **Applied Mathematics, Other.** Any instructional programs in applied mathematics not described above.

----- [Pure Mathematics.] (deleted)

------- [Pure Mathematics.] (deleted, included under 27.0101)

27.05 **Mathematical Statistics.** A group of instructional programs (see 27.0501)

27.0501 **Mathematical Statistics.** An instructional program that describes the mathematical theory and proofs forming the basis of probability and inference, and their applications to the collection, analysis and description of data. Includes instruction in statistical theory, experimental analysis, sampling techniques, survey research, projections, and related evaluations of numerical data.

------- **Educational Statistics and Research Methods.** (refer to 13.0603)

------- **Biostatistics.** (refer to 26.0615)

------- **Demography/Population Studies.** (refer to 45.0501)

------- **Health and Medical Biostatistics.** (refer to 51.2204)

------- **Business Statistics.** (refer to 52.1302)

------- **Marketing Research.** (refer to 52.1402)

27.99 **Mathematics, Other.** A group of instructional programs (see 27.9999)

27.9999 **Mathematics, Other.** Any instructional program in mathematics not described above.

-- **MILITARY SCIENCES.** (moved to **Chapter II: RESERVE OFFICER TRAINING CORPS PROGRAMS**)

----- [Maritime Science (Merchant Marine).] (deleted)

------- **Maritime Science (Merchant Marine)** (moved to 49.0309)

29. **MILITARY TECHNOLOGIES.** A summary of groups of instructional programs that prepare individuals in specialized and advanced subject matter for the armed services and related national security organizations.

29.01 **Military Technologies.** A group of instructional programs (see 29.0101)

29.0101 **Military Technologies.** An instructional program that prepares individuals to undertake advanced and specialized leadership and technical responsibilities for the armed services and related national security organizations. Includes instruction in such areas as weapons systems and technology, communications, intelligence, management, logistics, and strategy.

----- [Military Technologies, Other.] (deleted)

------- [Military Technologies, Other.] (deleted, included under 29.0101)

30. **MULTI/INTERDISCIPLINARY STUDIES.** A summary of groups of instructional programs, the components of which derive from two or more separate instructional programs.

30.01 **Biological and Physical Sciences.** A group of instructional programs (see 30.0101)

-- **Biological Sciences/Life Sciences.** (refer to 26. Series)

-- **Physical Sciences.** (refer to 40. Series)

30.0101 **Biological and Physical Sciences.** An instructional program that describes either a general synthesis of one or more of the biological and physical sciences, or a specialization which draws from the biological and physical sciences.

------- **Science Teacher Education, General.** (refer to 13.1316)

----- [Clinical Pastoral Care]. (deleted)

------- [Clinical Pastoral Care]. (deleted, included under 39.0701)

------ [Engineering and Other Disciplines.] (deleted)

------- [Engineering and Other Disciplines.] (deleted, included under 30.9999)

----- Humanities and Social Sciences. (deleted)

------- [Humanities and Social Sciences.] (deleted, included under 24.0199)

30.05 **Peace and Conflict Studies.** A group of instructional programs (see 30.0501)

-- **Psychology.** (refer to 42. Series)

-- **Social Sciences and History.** (refer to 45. Series)

30.0501 **Peace and Conflict Studies.** An instructional program that describes the study of the origins, resolution and prevention of international and inter-group conflicts. Includes instruction in peace research methods and related social scientific and psychological knowledge bases.

------- **International Relations and Affairs.** (refer to 45.0901)

30.06 **Systems Science and Theory.** A group of instructional programs (see 30.0601)

-- **Biological Sciences/Life Sciences.** (refer to 26. Series)

-- **Mathematics.** (refer to 27. Series)

-- **Physical Sciences.** (refer to 40. Series)

30.0601 **Systems Science and Theory.** An instructional program that describes a multidisciplinary approach to the analysis and solution of complex problems, requiring a combined approach using data and models from the natural, social, technological, behavioral and life sciences, and other specialized fields.

------- **Systems Engineering.** (refer to 14.2701)

30.08 **Mathematics and Computer Science.** A group of instructional programs (see 30.0801)

-- **Computer and Information Sciences.** (refer to 11. Series)

-- **Mathematics.** (refer to 27. Series)

30.0801 **Mathematics and Computer Science.** An instructional program that describes a general synthesis of mathematics and computer science or a specialization which draws from mathematics and computer science.

----- [Imaging Science.] (deleted)

------- [Imaging Science.] (deleted, included under 30.9999)

30.10 **Biopsychology.** A group of instructional programs (see 30.1001)

-- **Biological Sciences/Life Sciences.** (refer to 26. Series)

30.1001 **Biopsychology.** An instructional program that describes the study of the biological linkages to psychological phenomena, especially the linkages between biochemical and biophysical activity and the functioning of the central nervous system.

------- **Physiological Psychology/Psychobiology.** (refer to 42.1101)

30.11 **Gerontology.** A group of instructional programs (see 30.1101)

-- **Biological Sciences/Life Sciences.** (refer to 26. Series)

-- **Psychology.** (refer to 42. Series)

-- **Social Sciences.** (refer to 45. Series)

-- **Health Professions and Related Sciences.** (refer to 51. Series)

30.1101 **Gerontology.** An instructional program that describes the study of the human aging process and aged human populations, using the knowledge and methodologies of the social sciences, psychology and the biological and health sciences.

------- **Gerontological Services.** (refer to 19.0705)

------- **Social Work.** (refer to 44.0701)

30.12 **Historic Preservation, Conservation and Architectural History.** A group of instructional programs (see 04.0901).

----- **Architecture and Related Programs.** (refer to 04. Series)

----- **History.** (refer to 45.08 Series)

----- **Construction Trades.** (refer to 46. Series)

----- **Fine and Studio Arts.** (refer to 50.07 Series)

30.1201 **Historic Preservation, Conservation and Architectural History.** An instructional program that describes the architectural design principles and building techniques used in historic structures and environments, and the process of saving and restoring old buildings and districts for contemporary use and enjoyment. Includes instruction in architectural history; building conservation techniques; real estate, land-use and tax laws and codes; economics and public policy; and public relations.

30.13 **Medieval and Renaissance Studies.** A group of instructional programs (see 30.1301)

-- **Foreign Languages and Literatures.** (refer to 16. Series)

-- **English Language and Literature/Letters.** (refer to 23. Series)

-- **Philosophy and Religion.** (refer to 38. Series)

-- **Social Sciences and History.** (refer to 45. Series)

-- **Visual and Performing Arts.** (refer to 50. Series)

30.1301 **Medieval and Renaissance Studies.** An instructional program that describes the study of the Medieval and Renaissance periods in European and circum-Mediterranean history from the perspective of various disciplines in the humanities and social sciences, including history and archeology, as well as studies of period art and music.

30.14 **Museology/Museum Studies.** A group of instructional programs (see 30.1401)

-- **Social Sciences and History.** (refer to 45. Series)

-- **Visual and Performing Arts.** (refer to 50. Series)

30.1401 **Museology/Museum Studies.** An instructional program that describes the attitudes, knowledge, and skills required to develop, prepare, organize, administer, conserve, store and retrieve artifacts, exhibits and entire collections in museums and galleries, and that prepares individuals to assume curatorial, technical and managerial positions in museums. Includes instruction in institutional management, acquisition, exhibit design, conservation, packing techniques, and public relations.

30.15 **Science, Technology and Society.** A group of instructional programs (see 30.1501)

-- **Engineering.** (refer to 14. Series)

-- **Biological Sciences/Life Sciences.** (refer to 26. Series)

-- **Physical Sciences.** (refer to 40. Series)

-- **Philosophy and Religion.** (refer to 38. Series)

-- **Social Sciences.** (refer to 45. Series)

-- **Health Sciences and Allied Health Services.** (refer to 51. Series)

30.1501 **Science, Technology and Society.** An instructional program that describes the contemporary social and public policy ramifications of science and technology, the interrelationship of science and engineering with the public policy process, and the social and ethical dimensions of scientific and technological enterprises.

------- **Technology Education/Industrial Arts.** (refer to 21. Series)

------- **Public Policy Analysis.** (refer to 44.0501)

30.99 **Multi/Interdisciplinary Studies, Other.** A group of instructional programs (see 30.9999)

30.9999 **Multi/Interdisciplinary Studies, Other.** Any instructional program in multi/interdisciplinary studies not described above.

31. **PARKS, RECREATION, LEISURE AND FITNESS STUDIES.** A summary of groups of instructional programs that describe the principles and practices of managing parks and other recreational and fitness facilities; providing recreational, leisure and fitness services; and the study of human fitness.

31.01 **Parks, Recreation and Leisure Studies.** A group of instructional programs (see 31.0101)

31.0101 **Parks, Recreation and Leisure Studies.** An instructional program that describes the study of the principles underlying recreational and leisure activities, and the practices involved in providing indoor and outdoor recreational facilities and services for the general public.

----- [Outdoor Recreation.] (deleted)

------- [Outdoor Recreation.] (deleted, included under 31.0101)

31.03 **Parks, Recreation and Leisure Facilities Management.** A group instructional programs (see 31.0301)

* 31.0301 **Parks, Recreation and Leisure Facilities Management.** An instructional program that prepares individuals to develop and manage park facilities and other indoor and outdoor recreation and leisure facilities. Includes instruction in supervising support personnel, health and safety standards, public relations, and basic business and marketing principles.

----- [Water Resources.] (deleted)

------- [Water Resources.] (deleted, included under 31.9999)

31.05 **Health and Physical Education/Fitness.** A group of instructional programs that describe the study of human physiology and behavior as applied to sports, and the leadership and management of physical fitness and sports services.

31.0501 **Health and Physical Education, General.** An instructional program that generally describes the study and practice of activities and principles that promote physical fitness, achieve and maintain athletic prowess, and accomplish related research and service goals. Includes instruction in human movement studies, motivation studies, rules and practice of specific sports, exercise and fitness principles and techniques, basic athletic injury prevention and treatment, and organizing and leading fitness and sports programs.

------- **Health Teacher Education.** (refer to 13.1307)

------- **Physical Education Teaching and Coaching.** (refer to 13.1314)

31.0502 **Adapted Physical Education/Therapeutic Recreation.** An instructional program that describes the provision of physical education and fitness instruction and therapy to children and adults with special learning needs, disabilities, or diagnosed medical conditions, and that prepares individuals to provide and supervise appropriate activities for such persons. Includes instruction in the planning and administration of adapted and therapeutic fitness programs; the supervision of special fitness and rehabilitative students and clients; student and patient counseling and referral; record-keeping; and applicable legal and administrative regulations.

* 31.0503 **Athletic Training and Sports Medicine.** An instructional program that prepares individuals to prevent and treat athletic injuries, to perform related rehabilitative therapy, and to manage the provision of health and treatment services to athletes. Includes instruction in basic sports medicine, dietetics, movement and motivation sciences, administering preventive and treatment remedies, equipment maintenance, clinic management, and patient education and counseling.

31.0504 **Sport and Fitness Administration/Management.** An instructional program that prepares individuals to apply business, coaching and physical education principles to the organization, administration and management of athletic programs and teams, fitness/rehabilitation facilities and health clubs, sport recreation services, and related services. Includes instruction in program planning and development; business and financial management principles; sales, marketing and recruitment; event promotion, scheduling and management; facilities management; public relations; legal aspects of sports; and applicable health and safety standards.

31.0505 **Exercise Sciences/Physiology and Movement Studies.** An instructional program that describes the scientific study of the anatomy, physiology, biochemistry, and biophysics of human movement, and applications to exercise and therapeutic rehabilitation. Includes instruction in biomechanics, motor behavior, motor development and coordination, motor neurophysiology, performance research, rehabilitative therapies, the development of diagnostic and rehabilitative methods and equipment, and related analytical methods and procedures.

31.0506 **Socio-Psychological Sports Studies.** An instructional program that describes the scientific study of human motivation as applied to athletic performance, and the related social and cultural factors affecting the organization and behavior of sports and participants. Includes instruction in sports psychology, sociology of sports, studies of sports and coaching theory, motivational research, and the psychological aspects of motor behavior.

* 31.0599 **Health and Physical Education/Fitness, Other.** Any instructional program in health and physical education/fitness not described above.

31.99 **Parks, Recreation, Leisure and Fitness Studies, Other.** A group of instructional programs (see 31.9999)

* 31.9999 **Parks, Recreation, Leisure and Fitness Studies, Other.** Any instructional program in parks, recreation, leisure and fitness studies not described above.

-- **BASIC SKILLS.** (moved to **Chapter IV:** PERSONAL IMPROVEMENT AND LEISURE PROGRAMS)

-- **CITIZENSHIP/CIVIC ACTIVITIES.** (moved to **Chapter IV:** PERSONAL IMPROVEMENT AND LEISURE PROGRAMS)

-- **HEALTH-RELATED ACTIVITIES.** (moved to **Chapter IV:** PERSONAL IMPROVEMENT AND LEISURE PROGRAMS)

-- **INTERPERSONAL SKILLS.** (moved to **Chapter IV:** PERSONAL IMPROVEMENT AND LEISURE PROGRAMS)

-- **LEISURE AND RECREATIONAL ACTIVITIES.** (moved to **Chapter IV: PERSONAL IMPROVEMENT AND LEISURE PROGRAMS)**

-- **PERSONAL AWARENESS.** (moved to **Chapter IV: PERSONAL IMPROVEMENT AND LEISURE PROGRAMS)**

38. **PHILOSOPHY AND RELIGION.** A summary of groups of instructional programs that describe the study of modes, methods and types of logical inquiry; and the study of organized systems of belief and related practices.

38.01 **Philosophy.** A group of instructional programs (see 38.0101)

38.0101 **Philosophy.** An instructional program that describes the study of ideas and their logical structure, including arguments and investigations about abstract and real phenomena. Includes instruction in logic, ethics, aesthetics, epistemology, metaphysics, symbolism, history of philosophy, and applications to the theoretical foundations and methods of other disciplines.

38.02 **Religion/Religious Studies.** A group of instructional programs (see 38.0201)

38.0201 **Religion/Religious Studies.** An instructional program that describes the study of the nature of religious belief and specific religious and quasi-religious systems. Includes instruction in phenomenology; the sociology, psychology, philosophy, anthropology, literature and art of religion; mythology; scriptural and textual studies; religious history and politics; and specific studies of particular faith communities and their behavior.

------- **Islamic Studies** (refer to 05.0204)

------- **Jewish/Judaic Studies.** (refer to 05.0205)

38.99 **Philosophy and Religion.** A group of instructional programs (see 38.9999)

38.9999 **Philosophy and Religion.** Any instructional program in philosophy and religion not described above.

39. **THEOLOGICAL STUDIES AND RELIGIOUS VOCATIONS.** A summary of groups of instructional programs that describe the study of religious beliefs, doctrines, and practices from the intramural standpoint of a particular faith; and that prepare individuals for the professional practice of religious vocations.

39.01 **Biblical and Other Theological Languages and Literatures.** A group of instructional programs (see 39.0101)

----- **Middle Eastern Languages and Literatures.** (refer to 16.11 Series)

----- **Classical and Ancient Near Eastern Languages and Literatures.** (refer to 16.12 Series)

39.0101 **Biblical and Other Theological Languages and Literatures.** An instructional program that describes the study of liturgical, scriptural and historical languages and literatures used by Christianity, Judaism, and other major faiths as vehicles for communicating doctrine, forms of worship, rules, and traditions. Includes instruction in translation techniques, textual analysis and criticism, the study and preservation of ancient manuscripts, and studies of specific languages such as Hebrew, Koine Greek, Biblical Aramaic, and others.

39.02 **Bible/Biblical Studies.** A group of instructional programs (see 39.0201)

39.0201 **Bible/Biblical Studies.** An instructional program that describes the study of the Bible and its component books from the standpoint of the Christian or Jewish faiths, with an emphasis on understanding and interpreting the theological, doctrinal, and ethical messages contained within it. May include preparation for applying these studies in various church-related vocations.

39.03 **Missions/Missionary Studies and Misology.** A group of instructional programs (see 39.0301)

39.0301 **Missions/Missionary Studies and Misology.** An instructional program that describes the theory and practice of Christian or other religious outreach, social service and proselytization, and that prepares individuals for mission vocations.

39.04 **Religious Education.** A group of instructional programs (see 39.0401)

39.0401 **Religious Education.** An instructional program that describes the theory and practice of providing educational services to members of faith communities, within the context of a particular religion, and that prepares individuals to serve as religious educators. Includes instruction in planning and teaching lessons; organizing and supervising instructional activities; designing and developing instructional materials; and administering religious education programs and facilities.

39.05 **Religious/Sacred Music.** A group of instructional programs (see 39.0501)

----- **Music.** (refer to 50.09 Series)

39.0501 **Religious/Sacred Music.** An instructional program that describes the history, theory, composition, and performance of music for religious or sacred purposes, and that prepares individuals for religious musical vocations such as choir directors, Cantors, organists, and chanters.

39.06 **Theological and Ministerial Studies.** A group of instructional programs that prepare individuals for the professional study and practice of theology and ministry.

39.0601 **Theology/Theological Studies.** An instructional program that describes the study of the beliefs and doctrine of a particular religious faith from the intramural point of view of that faith. Includes instruction in systematic theology, historical theology, moral theology, doctrinal studies, dogmatics, apologetics, and applications to specific questions of ecclesiastical polity and religious life.

39.0602 **Divinity/Ministry (B.D., M.Div.).** An instructional program that prepares individuals for ordination as ministers or priests in any of the Christian religious traditions. Includes instruction in the theology and polity of a particular church, liturgy, principles of pastoral ministry, homiletics, basic church/parish organization and management, and related studies.

39.0603 **Rabbinical and Talmudic Studies (M.H.L./Rav).** An instructional program that prepares individuals for ordination as Rabbis in the Orthodox, Conservative and Reformed Jewish traditions; and that describes the specialized devotional study of Jewish law and sacred writings.

------- **Jewish/Judaic Studies.** (refer to 05.0205)

39.0604 **Pre-Theology/Pre-Ministerial Studies.** An instructional program that prepares individuals to enter a seminary or other program leading to religious ordination, or a related religious vocation.

39.0699 **Theological and Ministerial Studies, Other.** An instructional program in theological and ministerial studies not described above.

39.07 **Pastoral Counseling and Specialized Ministries.** A group of instructional programs (see 39.0701)

39.0701 **Pastoral Counseling and Specialized Ministries.** An instructional program that prepares ordained ministers, priests and rabbis, and other religious vocations, in the principles and methods of pastoral practice in such areas as clinical pastoral counseling, marriage and family therapy, youth ministry, outreach and evangelism, ministry to special populations, advanced leadership and management skills, and other studies.

------- **Counseling Psychology.** (refer to 42.0601)

39.99 **Theological Studies and Religious Vocations, Other.** A group of instructional programs (see 39.9999)

39.9999 **Theological Studies and Religious Vocations, Other.** Any instructional program in theological studies and religious vocations not described above.

40. **PHYSICAL SCIENCES.** A summary of groups of instructional programs that describe the scientific study of inanimate objects, processes of matter and energy, and associated phenomena.

40.01 **Physical Sciences, General.** A group of instructional programs (see 40.0101)

40.0101 **Physical Sciences, General.** An instructional program that generally describes the major topics, concepts, processes, and interrelationships of physical phenomena as studied in any combination of physical science disciplines.

40.02 **Astronomy.** A group of instructional programs (see 40.0201)

40.0201 **Astronomy.** An instructional program that describes the scientific study of matter and energy in the universe, using observational techniques such as spectroscopy, photometry, interferometry, radio astronomy and optical astronomy. Includes instruction in celestial mechanics, cosmology, and stellar physics; and applications to research on lunar, planetary, solar, stellar, and galactic phenomena.

40.03 **Astrophysics.** A group of instructional programs (see 40.0301)

40.0301 **Astrophysics.** An instructional program that describes the scientific and mathematical study of the behavior of astronomical phenomena and related physico-chemical interactions, and the experimental laboratory simulation of these phenomena. Includes instruction in cosmology, plasma kinetics, stellar physics, convolution and nonequilibrium radiation transfer theory, non-Euclidian geometries, mathematical modeling, galactic structure theory, and relativistic astronomy.

40.04 **Atmospheric Sciences and Meteorology.** A group of instructional programs (see 40.0401)

40.0401 **Atmospheric Sciences and Meteorology.** An instructional program that describes the scientific study of the composition and behavior of the atmospheric envelopes surrounding the earth and other planets, the effect of earth's atmosphere on terrestrial weather, and related problems of environment and climate. Includes instruction in atmospheric chemistry and physics, atmospheric dynamics, climatology and climate change, weather simulation, weather forecasting, climate modeling and mathematical theory; and studies of specific phenomena such as clouds, weather systems, storms, and precipitation patterns.

40.05 **Chemistry.** A group of instructional programs (see 40.0501)

40.0501 **Chemistry, General.** A group of instructional programs that generally describes the scientific study of the composition and behavior of matter, including its micro- and macro-structure, the processes of chemical change, and the theoretical description and laboratory simulation of these phenomena.

-------- **Chemistry Teacher Education.** (refer to 13.1323)

-------- **Chemical Engineering.** (refer to 14.0701)

40.0502 **Analytical Chemistry.** An instructional program that describes the scientific study of techniques for analyzing and describing matter, including its precise composition and the interrelationships of constituent elements and compounds. Includes instruction in spectroscopy, chromatography, atomic absorption, photometry, chemical modeling, mathematical analysis, laboratory analysis procedures and equipment maintenance, and applications to specific research, industrial and health problems.

40.0503 **Inorganic Chemistry.** An instructional program that describes the scientific study of the elements and their compounds, other than the hydrocarbons and their derivatives. Includes instruction in the characterization and synthesis of non-carbon molecules, including their structure and their bonding, conductivity, and reactive properties; research techniques such as spectroscopy, X-ray diffraction, and photoelectron analysis; and the study of specific compounds, such as transition metals, and compounds composed of inorganic and organic molecules.

40.0504 **Organic Chemistry.** An instructional program that describes the scientific study of the properties and behavior of hydrocarbon compounds and their derivatives. Includes instruction in molecular conversion and synthesis, the molecular structure of living cells and systems, the mutual reactivity of organic and inorganic compounds in combination, the spectroscopic analysis of hydrocarbon compounds, and applications to specific problems in research, industry, and health.

40.0505 **Medicinal/Pharmaceutical Chemistry.** An instructional program that describes the scientific study of the structural and reactive properties of natural and synthetic compounds intended for applications to human or animal medicine, pharmaceutical industrial uses, or treatment of plant disease. Includes instruction in molecular synthesis, drug design, properties of natural organic compounds, cosmetic chemistry, chemical manufacturing systems, drug behavior and host metabolism, and specific applications to health and industrial problems.

-------- **Pharmaceutical and Pharmacological Sciences.** (refer to 51.20 Series)

40.0506 **Physical and Theoretical Chemistry.** An instructional program that describes the scientific study of the theoretical properties of matter, and the relation of physical forces and phenomena to the chemical structure and behavior of molecules and other compounds. Includes instruction in reaction theory, calculation of potential molecular properties and behavior, computer simulation of structures and actions, transition theory, statistical mechanics, phase studies, quantum chemistry, and the study of surface properties.

40.0507 **Polymer Chemistry.** An instructional program that describes the scientific study of synthesized macromolecule and their interactions with other substances. Includes instruction in molecular bonding theory, polymerization, properties and behavior of unstable compounds, the development of tailored polymers, transition phenomena, and applications to specific industrial problems and technologies.

-------- **Polymer/Plastics Engineering.** (refer to 14.3201)

40.0599 **Chemistry, Other.** Any instructional program in chemistry not described above.

40.06 **Geological and Related Sciences.** A group of instructional programs that describe the natural history and physical properties of the earth.

40.0601 **Geology.** An instructional program that describes the scientific study of the earth; the forces acting upon it; and the behavior of the solids, liquids and gases comprising it. Includes instruction in historical geology, geomorphology, sedimentology, the chemistry of rocks and soils, stratigraphy, mineralogy, petrology, geostatistics, volcanology, glaciology, geophysical principles, and applications to research and industrial problems.

-------- **Geological Engineering.** (refer to 14.1501)

40.0602 **Geochemistry.** An instructional program that describes the scientific study of the chemical properties and behavior of the silicates and other substances forming, and formed by geomorphological processes of the earth and other planets. Includes instruction in chemical thermodynamics, equilibria in silicate systems, atomic bonding, isotopic fractionation, geochemical modelling, specimen analysis, and studies of specific organic and inorganic substances.

40.0603 **Geophysics and Seismology.** An instructional program that describes the scientific study of the physics of solids and its application to the study of the earth and other planets. Includes instruction in gravimetric, seismology, earthquake forecasting, magnetrometry, electrical properties of solid bodies, plate tectonics, thermodynamics, remote sensing, and laboratory simulations of geological processes.

40.0604 **Paleontology.** An instructional program that describes the scientific study of extinct life forms and associated fossil remains, and the reconstruction and analysis of ancient life forms, ecosystems, and geologic processes. Includes instruction in sedimentation and fossilization processes, fossil chemistry, evolutionary biology and paleobiology, field research methods, and laboratory research and conservation methods; as well as studies of specific subjects such as paleoecology, paleoclimatology, trace fossils, micropaleontology, invertebrate paleontology, vertebrate paleontology, paleobotany, and paleoceanography.

-------- **Evolutionary Biology.** (refer to 26.0617)

40.0699 **Geological and Related Sciences, Other.** Any instructional program in geological and related sciences not described above.

40.07 **Miscellaneous Physical Sciences.** A group of instructional programs that describe specialized areas of the physical sciences not in the other physical sciences groupings.

40.0701 **Metallurgy.** An instructional program that describes the scientific study of the chemical and physical properties of metals and related compounds in their solid, liquid, and gaseous states, together with applications to industrial problems. Includes instruction in X-Ray diffraction, metallurgical microscopy, solid-state chemistry, thermodynamics of solids and solutions, crystallography, surface physics, molecular bonding, electrodynamics of metals, elasticity and mechanical properties, and processing behavior.

-------- **Metallurgical Engineering.** (refer to 14.2001)

40.0702 **Oceanography.** An instructional program that describes the scientific study of the oceans and associated phenomena, including the land/water and water/atmosphere boundaries. Includes instruction in physical oceanography, marine chemistry, marine geology, and biological oceanography; and applications to specific research problems such as coastal erosion, seawater corrosion and reactive behavior, seafloor volcanism, underwater acoustics and optics, oceanic environments and conservation, and global climate change.

-------- **Ocean Engineering.** (refer to 14.2401)

40.0703 **Earth and Planetary Sciences.** An instructional program that describes the scientific study of the earth and other planets as comprehensive physical systems incorporating solid, liquid, gas, and radiation constituents, as well as exhibiting interactions with other systems. Includes instruction in planetary evolution, gravitational physics, atmospheric evolution, volcanism and crustal movement studies, organic systems and ecologies, orbital mechanics, radiation physics, and the study of planetary and satellite systems.

40.08 **Physics.** A group of instructional programs (see 40.0801)

40.0801 **Physics, General.** An instructional program that generally describes the scientific study of matter and energy, and the formulation and testing of the laws governing the behavior of the matter-energy continuum. Includes instruction in classical and modern physics, electricity and magnetism, thermodynamics, mechanics, wave properties, nuclear processes, relativity and quantum theory, quantitative methods, and laboratory methods.

------- **Physics Teacher Education.** (refer to 13.1329)

------- **Engineering Physics.** (refer to 14.1201)

------- **Biophysics.** (refer to 26.0203)

------- **Medical Physics/Biophysics.** (refer to 51.1304)

------- **Health Physics/Radiologic Health.** (refer to 51.2205)

40.0802 **Chemical and Atomic/Molecular Physics.** An instructional program that describes the scientific study of the behavior of matter-energy phenomena at the level of atoms and molecules. Includes instruction in chemical physics, atomic forces and structure, fission reactions, molecular orbital theory, magnetic resonance, molecular bonding, phase equilibria, quantum theory of solids, and applications to the study of specific elements and higher compounds.

40.0804 **Elementary Particle Physics.** An instructional program that describes the scientific study of the basic constituents of sub-atomic matter and energy, and the forces governing fundamental processes. Includes instruction in quantum theory, field theory, single-particle systems, perturbation and scattering theory, matter-radiation interaction, symmetry, quarks, capture, Schroedinger mechanics, methods for detecting particle emission and absorption, and research equipment operation and maintenance.

40.0805 **Plasma and High-Temperature Physics.** An instructional program that describes the scientific study of the properties and behavior of matter at high temperatures, such that molecular and atomic structures are in a disassociated ionic or electronic state. Includes instruction in magnetohydrodynamics, free electron phenomena, fusion theory, electromagnetic fields and dynamics, plasma and non-linear wave theory, instability theory, plasma shock phenomena, quantitative modelling, and research equipment operation and maintenance.

40.0806 **Nuclear Physics.** An instructional program that describes the scientific study of the properties and behavior of atomic nuclei instruction in nuclear reaction theory, quantum mechanics, energy conservation, nuclear fission and fusion, strong and weak atomic forces, nuclear modeling, nuclear decay, nucleon scattering, pairing, photon and electron reactions, statistical methods, and research equipment operation and maintenance.

------- **Nuclear Engineering.** (refer to 14.2301)

40.0807 **Optics.** An instructional program that describes the scientific study of light energy, including its structure, properties and behavior under different conditions. Includes instruction in wave theory, wave mechanics, electromagnetic theory, physical optics, geometric optics, quantum theory of light, photon detecting, laser theory, wall and beam properties, coherence and chaotic light, non-linear optics, harmonic generation, optical systems theory, and applications to engineering problems.

40.0808 **Solid state and Low-Temperature Physics.** An instructional program that describes the scientific study of solids and related states of matter at low energy levels, including liquids and dense gases. Includes instruction in statistical mechanics, quantum theory of solids, many-body theory, low temperature phenomena, electron theory of metals, band theory, crystalline structures, magnetism and superconductivity, equilibria and dynamics of liquids, film and surface phenomena, quantitative modeling, and research equipment operation and maintenance.

40.0809 **Acoustics.** An instructional program that describes the scientific study of sound, and the properties and behavior of acoustic wave phenomena under different conditions. Includes instruction in wave theory, the acoustic wave equation, energy transformation, vibration phenomena, sound reflection and transmission, scattering and surface wave phenomena, singularity expansion theory, ducting, and applications to specific research problems such as underwater acoustics, crystallography, and health diagnostics.

40.0810 **Theoretical and Mathematical Physics.** An instructional program that describes the scientific and mathematical formulation and evaluation of the physical laws governing, and models describing, matter-energy phenomena, and the analysis of related experimental designs and results. Includes instruction in classical and quantum theory, relativity theory, field theory, mathematics of infinite series, vector and coordinate analysis, wave and particle theory, advanced applied calculus and geometry, analyses of continuum, cosmology, and statistical theory and analysis.

40.0899 **Physics, Other.** Any instructional program in physics not described above.

---- [Planetary Science.] (deleted)

-------- [Planetary Science.] (deleted, included under 40.0703)

40.99 **Physical Sciences, Other.** A group of instructional programs (see 40.9999)

40.9999 **Physical Sciences, Other.** Any instructional program in physical sciences not described above.

41. **SCIENCE TECHNOLOGIES.** A summary of groups of instructional programs that prepare individuals to apply scientific principles and technical skills in support of scientific research and development.

41.01 **Biological Technologies.** A group of instructional programs (see 41.0101)

* 41.0101 **Biological Technology/Technician.** An instructional program that prepares individuals to apply scientific principles and technical skills in support of biologists in research and industrial settings. Includes instruction in field research and laboratory methods.

----- **Health and Medical Laboratory Technologies/Technicians.** (refer to 51.10 Series)

------- [Oceanographic (Biological) Technology.] (deleted, included under 40.0702)

------- [Biological Technologies, Other.] (deleted, included under 41.0101)

41.02 **Nuclear and Industrial Radiologic Technologies.** A group of instructional programs that prepare individuals to apply scientific principles and technical skills in support of design, testing and operational procedures related to the industrial use of radioisotopes and nuclear energy.

------- [Nuclear Materials Handling Technology.] (deleted, included under 41.0205)

------- [Nuclear Power Plant Operation Technology.] (deleted, included under 41.0205)

------- [Nuclear Power Plant Radiation Control Technology.] (deleted, included under 41.0205)

* 41.0204 **Industrial Radiologic Technology/Technician.** An instructional program that prepares individuals to apply scientific principles and technical skills to the operation of industrial and research testing equipment using radioisotopes. Includes instruction in X-Ray analysis of materials, nondestructive testing and inspection of materials, and continuous measurement of paper or metal thicknesses.

* 41.0205 **Nuclear/Nuclear Power Technology/Technician.** An instructional program that prepares individuals to apply scientific principles and technical skills in support of research scientists and operating engineers engaged in the running of nuclear reactors, and in nuclear materials processing and disposal. Includes instruction in basic nuclear physics and nuclear engineering, monitoring and safety procedures, radioactive materials handling and disposal, equipment maintenance and operation, and record-keeping.

* 41.0299 **Nuclear and Industrial Radiologic Technologies/Technicians, Other.** Any instructional program in nuclear and industrial radiologic technologies not described above.

41.03 **Physical Science Technologies.** A group of instructional programs that prepare individuals to apply scientific principles and technical skills in support of physical science research and development projects.

* 41.0301 **Chemical Technology/Technician.** An instructional program that prepares individuals to apply scientific principles and technical skills in support of chemical research and industrial operations. Includes instruction in laboratory research methods, industrial processing methods and equipment, and instrumentation and test equipment operation and maintenance.

------- [Geological Technology/Technician.] (deleted, included under 41.0399)

------- **Metallurgical Technology/Technician.** (refer to 15.0611)

------- [Meteorological Technology.] (deleted, included under 41.0399)

------- [Oceanographic (Physical) Technology.] (deleted, included under 40.0702)

* 41.0399 **Physical Science Technologies/Technicians, Other.** Any instructional program in physical science technologies not described above.

41.99 **Science Technologies, Other.** A group of instructional programs (see 41.9999)

* 41.9999 **Science Technologies/Technicians, Other.** Any instructional program in science technologies not described above.

42. **PSYCHOLOGY.** A summary of groups of instructional programs that describe the scientific study of the behavior of individuals, independently or collectively, and the physical and environmental bases of mental, emotional and neurological activity.

42.01 **Psychology, General.** A group of instructional programs (see 42.0101)

42.0101 **Psychology, General.** An instructional program that generally describes the scientific study of individual and collective behavior, the physical and environmental bases of behavior, and the analysis and treatment of behavior problems and disorders. Includes instruction in the principles of the various subfields of psychology, research methods, and psychological assessment and testing methods.

42.02 **Clinical Psychology.** A group of instructional programs (see 42.0201)

42.0201 **Clinical Psychology.** An instructional program that prepares individuals for the independent professional practice of clinical psychology, involving the analysis, diagnosis, and clinical treatment of psychological disorders and behavioral pathologies. Includes instruction in clinical assessment and diagnosis, personality appraisal, psychopathology, clinical psychopharmacology, behavior modification, therapeutic intervention skills, patient interviewing, personalized and group therapy, child and adolescent therapy, cognitive and behavioral therapy, supervised clinical practice, ethical standards, and applicable regulations.

42.03 **Cognitive Psychology and Psycholinguistics.** A group of instructional programs (see 42.0301)

42.0301 **Cognitive Psychology and Psycholinguistics.** An instructional program that describes the scientific study of the mechanisms and processes of learning and thinking, and associated information encoding, decoding, processing and transmitting systems. Includes instruction in theories of cognition and intelligence; studies of cognitive processes such as memory, sensation, perception, pattern recognition, problem solving, and conceptual thinking; cybernetics; psycholinguistics; and the study of biological and social communications mechanisms and processes.

------- **Linguistics.** (refer to 16.0102)

42.04 **Community Psychology.** A group of instructional programs (see 42.0401)

42.0401 **Community Psychology.** An instructional program that prepares individuals to apply psychological principles to the analysis of social problems, and the implementation of intervention strategies for addressing these problems. Includes instruction in social ecology, primary and secondary prevention of social pathologies, social intervention strategies and tactics, large group counseling, social services systems behavior, creating settings, cultural stress, and the dynamics of social change.

------- **Community, Organization, Resources and Services.** (refer to 44.0201)

------- **Community Health Liaison.** (refer to 51.0301)

----- [Comparative Psychology.] (deleted)

------- [Comparative Psychology.] (deleted, included under 42.9999)

42.06 **Counseling Psychology.** A group of instructional programs (see 42.0601)

42.0601 **Counseling Psychology.** An instructional program that prepares individuals for the independent professional practice of psychological counseling, involving the rendering of therapeutic services to individuals and groups experiencing psychological problems and exhibiting distress symptoms. Includes instruction in counseling theory, therapeutic intervention strategies, patient/counselor relationships, testing and assessment methods and procedures, group therapy, marital and family therapy, child and adolescent therapy, supervised counseling practice, ethical standards, and applicable regulations.

------- **Counselor Education/Counseling and Guidance Services.** (refer to 13.1101)

------- **College/Postsecondary Student Counseling and Personnel Services.** (refer to 13.1102)

------- **Family and Marriage Counseling.** (refer to 19.0703)

------- **Pastoral Counseling and Specialized Ministries.** (refer to 39.0701)

42.07 **Developmental and Child Psychology.** A group of instructional programs (see 42.0701)

42.0701 **Developmental and Child Psychology.** An instructional program that describes the scientific study of the psychological growth and development of individuals from infancy through adulthood. Includes instruction in cognitive and perceptual development, emotional development, personality development, the effects of biological maturation on behavior, theories of cognitive growth and related research methods, testing and assessment methods for different age levels, research on child and adolescent behavior therapy, and the psychology of aging.

------- **Educational Psychology.** (refer to 13.0802)

42.08 **Experimental Psychology.** A group of instructional programs (see 42.0801)

42.0801 **Experimental Psychology.** An instructional program that describes the scientific study of behavior under experimental conditions, and the analysis of controlled behavioral responses. Includes instruction in learning theory, research design and experimental methods, psychological measurement, statistical design and methods, analysis of cognitive and behavioral variables, and the conduct of specialized and large-scale studies.

42.09 **Industrial and Organizational Psychology.** A group of instructional programs (see 42.0901)

42.0901 **Industrial and Organizational Psychology.** An instructional program that describes the scientific study of individual and group behavior in institutional settings, applications to related problems of organization and industry, and that may prepare individuals to apply such principles in industrial and organizational settings. Includes instruction in group behavior theory, organizational theory, reward/punishment structures, human-machine and human-computer interactions, motivation dynamics, human stress studies, environmental and organizational influences on behavior, alienation and satisfaction, and job testing and assessment.

------- **Human Resources Management.** (refer to 52.1001)

------- **Organizational Behavior Studies.** (refer to 52.1003)

----- [Personality Psychology.] (deleted)

------- [Personality Psychology.] (deleted, included under 42.9999)

42.11 **Physiological Psychology/Psychobiology.** A group of instructional programs (see 42.1101)

42.1101 **Physiological Psychology/Psychobiology.** An instructional program that describes the scientific study of the biological bases of psychological functioning, and their application to experimental and therapeutic research problems. Includes instruction in functional neuroanatomy, neural system development, biochemical neural regulatory mechanisms, neurological biophysics, memory storage and retrieval, physiology of cognition and perception, physiological bases of psychopathology and behavioral disorders, psychopharmacology, comparative psychobiology, and specialized experimental design and research methods.

------- **Biopsychology.** (refer to 30.1001)

------- **Physiology, Human and Animal.** (refer to 26.0706)

------- **Medical Physiology.** (refer to 51.1313)

----- [Psycholinguistics.] (deleted)

------- [Psycholinguistics.] (deleted, included under 42.0301)

----- [Psychometrics.] (deleted)

------- [Psychometrics.] (deleted, included under 42.9999)

----- [Psychopharmacology.]

------- [Psychopharmacology.] (deleted, included under 42.9999)

----- [Quantitative Psychology.] (deleted)

------- [Quantitative Psychology.] (deleted, included under 42.9999)

42.16 **Social Psychology**. A group of instructional programs (see 42.1601)

42.1601 **Social Psychology**. An instructional program that describes the scientific study of individual behavior in group contexts, group behavior, and associated phenomena. Includes instruction in social learning theory, group theory and dynamics, sex roles, social cognition and inference, attribution theory, attitude formation, criminal behavior and other social pathologies, altruistic behavior, social development, and social ecology.

------- **Sociology**. (refer to 45.1101)

42.17 **School Psychology**. A group of instructional programs (see 42.1701)

42.1701 **School Psychology**. An instructional program that prepares individuals to apply clinical and counseling psychology principles to the diagnosis and treatment of student behavioral problems. Includes instruction in child and/or adolescent development; learning theory; testing, observation and other procedures for assessing educational, personality, intelligence and motor skill development; therapeutic intervention strategies for students and families; identification and classification of disabilities and disorders affecting learning; school psychological services planning; supervised counseling practice; ethical standards; and applicable regulations.

------- **Educational Psychology**. (refer to 13.0802)

42.99 **Psychology, Other**. A group of instructional programs (see 42.9999)

* 42.9999 **Psychology, Other**. Any instructional program in psychology not described above.

43. **PROTECTIVE SERVICES**. A summary of groups of instructional programs that describe the principles and procedures for providing police, fire, and other safety services, and for managing penal institutions.

43.01 **Criminal Justice and Corrections**. A group of instructional programs that describe the principles and procedures for conducting and supervising law enforcement, corrections, and security services.

----- **Criminology.** (refer to 45.04 Series)

------- [Correctional Administration.] (deleted, included under 43.0102)

* 43.0102 **Corrections/Correctional Administration.** An instructional program that prepares individuals to apply the theories, principles, and techniques of correctional science to the development, administration and implementation of procedures for the incarceration, supervision, and rehabilitation of legal offenders.

* 43.0103 **Criminal Justice/Law Enforcement Administration.** An instructional program that prepares individuals to apply the theories and practices of criminal justice to structuring, managing, directing, and controlling criminal justice agencies, including police departments, sheriff's departments, law enforcement divisions and units, and private protective services.

------- **Natural Resources Protection and Law Enforcement.** (refer to 03.0203)

43.0104 **Criminal Justice Studies.** An instructional program that describes the study of the criminal justice system, its organizational components and processes, and its legal and public policy contexts. Includes instruction in criminal law and policy, police and correctional systems organization, the administration of justice and the judiciary, and public attitudes regarding criminal justice issues.

------- [Criminal Justice Technology] (deleted, included under 43.0107)

* 43.0106 **Forensic Technology/Technician.** An instructional program that prepares individuals to conduct crime scene and laboratory analyses and evaluations of evidentiary materials, including human remains, under the supervision of a pathologist, forensic administrator or other law enforcement personnel. Includes instruction in principles of pathology, laboratory technology and procedures, dusting and fingerprinting, reconstructive analysis and related skills.

* 43.0107 **Law Enforcement/Police Science.** An instructional program that prepares individuals to perform the duties of police and public security officers, including patrol and investigative activities, traffic control, crowd control and public relations, witness interviewing, evidence collection and management, basic crime prevention methods, weapon and equipment operation and maintenance, report preparation, and other routine law enforcement responsibilities.

------- **Natural Resources Law Enforcement and Protective Services.** (refer to 03.0203)

------- [Law Enforcement Administration.] (deleted, included under 43.0103)

* 43.0109 **Security and Loss Prevention Services.** An instructional program that prepares individuals to perform routine inspection, patrol and crime prevention services for private clients. Includes instruction in the provision of personal protection as well as property security.

* 43.0199 **Corrections and Criminal Justice, Other.** Any instructional program in corrections and criminal justice not described above.

43.02 **Fire Protection.** A group of instructional programs that prepare individuals to perform firefighting and related services.

* 43.0201 **Fire Protection and Safety Technology/Technician.** An instructional program that prepares individuals to apply a knowledge of fire prevention and control skills to problems of reducing fire risk, loss limitation, supervising substance removal, conducting fire investigations, and advising on matters of safety procedures and fire prevention policy.

* 43.0202 **Fire Services Administration.** An instructional program that prepares individuals to structure, manage, direct, and control fire departments, fire prevention services, fire inspection and investigation offices, and ancillary rescue services.

* 43.0203 **Fire Science/Firefighting.** An instructional program that prepares individuals to perform the duties of fire fighters. Includes instruction in firefighting equipment operation and maintenance, principles of fire science and combustible substances, methods of controlling different types of fires, hazardous material handling and control, fire rescue procedures, public relations, and applicable laws and regulations.

------- **Natural Resources Law Enforcement and Protective Services.** (refer to 03.0203)

------- **Emergency Medical Technology/Technician.** (refer to 51.0904)

* 43.0299 **Fire Protection, Other.** Any instructional program in fire protection not described above.

43.99 **Protective Services, Other.** A group of instructional programs (see 43.9999)

* 43.9999 **Protective Services, Other.** Any instructional program in protective services not described above.

44. **PUBLIC ADMINISTRATION AND SERVICES.** A summary of groups of instructional programs that prepare individuals to analyze, manage, and deliver public programs and services.

----- [Public Affairs.] (deleted)

------- [Public Affairs.] (deleted, included under 44.0401)

44.02 **Community Organization, Resources and Services.** A group of instructional programs (see 44.0201)

44.0201 **Community Organization, Resources and Services.** An instructional program that describes the theories, principles, and practice of providing services to communities, organizing communities and neighborhoods for social action, serving as community liaisons to public agencies, and using community resources to furnish information, instruction, and assistance to all members of a community. May prepare individuals to apply such knowledge and skills in community service positions.

------- **Community Psychology.** (refer to 42.0401)

------- **Community Health Liaison.** (refer to 51.0301)

----- [International Public Service.] (deleted)

------- [International Public Service.] (deleted, included under 45.0901)

44.04 **Public Administration.** A group of instructional programs (see 44.0401)

44.0401 **Public Administration.** An instructional program that prepares individuals to serve as managers in the executive arm of local, state, and federal government; and that describes the systematic study of executive organization and management. Includes instruction in the roles, development, and principles of public administration; the management of public policy; executive-legislative relations; public budgetary processes and financial management; administrative law; public personnel management; professional ethics; and research methods.

------- **Public and Non-Profit Management.** (refer to 52.0206)

------- **Public Finance.** (refer to 52.0808)

44.05 **Public Policy Analysis.** A group of instructional programs (see 44.0501)

44.0501 **Public Policy Analysis.** An instructional program that describes the systematic analysis of public policy issues and decision processes. Includes instruction in the role of economic and political factors in public decision-making and policy formulation; microeconomic analysis of policy issues; resource allocation and decision modelling; cost/benefit analysis; statistical methods; and applications to specific public policy topics.

------- **Natural Resources Management and Policy.** (refer to 03.0201)

------- **Science, Technology and Society.** (refer to 30.1501)

------- **Public Finance.** (refer to 52.0808)

----- [Public Works.] (deleted)

------- [Public Sanitation.] (deleted, included under 44.9999]

------- [Public Transportation.] (deleted, included under 44.9999)

------- [Public Utilities.] (deleted, included under 44.9999)

------- [Public Works, Other.] (deleted,included under 44.9999)

44.07 **Social Work.** A group of instructional programs (see 44.0701)

44.0701 **Social Work.** An instructional program that prepares individuals for the professional practice of social welfare administration and counseling, and that describes the study of organized means of providing basic support services for vulnerable individuals and groups. Includes instruction in social welfare policy; case work planning; social counseling and intervention strategies; administrative procedures and regulations; and specific applications in areas such as child welfare and family services, probation, employment services, and disability counseling.

------- **Clinical and Medical Social Work.** (refer to 51.1503)

------- [Social Work, Other.] (deleted, included under 44.0701)

44.99 **Public Administration and Services, Other.** A group of instructional programs (see 44.9999)

* 44.9999 **Public Administration and Services, Other.** Any instructional program in public administration and services not described above.

45. **SOCIAL SCIENCES AND HISTORY.** A summary of groups of instructional programs that describe the systematic study of social systems, social institutions, and social behavior, as well as the study of the human past.

45.01 **Social Sciences, General.** A group of instructional programs (see 45.0501)

45.0101 **Social Sciences, General.** An instructional program that generally describes the study of human social behavior and social institutions using any of the methodologies common to the social sciences and/or history, or an undifferentiated program of study in the social sciences.

------- **Social Science Teacher Education.** (refer to 13.1317)

------- **Social Studies Teacher Education.** (refer to 13.1318)

------- **Liberal Arts and Sciences.** (refer to 24.0101)

45.02 **Anthropology.** A group of instructional programs (see 45.0201)

45.0201 **Anthropology.** An instructional program that describes the systematic study of human beings, their antecedents and related primates, and their cultural behavior and institutions, in comparative perspective. Includes instruction in biological/physical anthropology, primatology, human paleontology and prehistoric archeology, hominid evolution, anthropological linguistics, ethnography, ethnology, ethnohistory, socio-cultural anthropology, psychological anthropology, research methods, and applications to areas such as medicine, forensic pathology, museum studies, and international affairs.

------- **Area, Ethnic and Cultural Studies.** (refer to 05. Series)

------- **Linguistics.** (refer to 16.0102)

------- **Evolutionary Biology.** (refer to 26.0617)

------- **Museum Studies/Museology.** (refer to 30.1401)

------- **Paleontology.** (refer to 40.0604)

45.03 **Archeology.** A group of instructional programs (see 45.0301)

45.0301 **Archeology.** An instructional program that describes the systematic study of extinct societies, and the past of living societies, via the excavation, analysis and interpretation of their artifactual, human, and associated remains. Includes instruction in archeological theory, field methods, dating methods, conservation and museum studies, cultural and physical evolution, and the study of specific selected past cultures.

------- **Classical and Ancient Near Eastern Languages and Literatures.** (refer to 16.12 Series)

------- **Museum Studies/Museology.** (refer to 30.1401)

------- **Art History, Criticism and Conservation.** (refer to 50.0703)

------- [Archeological Technology.] (deleted, included under 45.0301)

45.04 **Criminology.** A group of instructional programs (see 45.0401)

45.0401 **Criminology.** An instructional program that describes the systematic study of crime as a sociopathological phenomenon, the behavior of criminals, and the social institutions evolved to respond to crime. Includes instruction in the theory of crime, psychological and social bases of criminal behavior, social value systems and the theory of punishment, criminal law and criminal justice systems, penology, rehabilitation and recidivism, studies of specific types of crime, social attitudes and policy, and applications to specific issues in law enforcement administration and policy.

----- **Corrections and Criminal Justice.** (refer to 43.01 Series)

------- **Clinical Psychology.** (refer to 42.0201)

------- **Sociology.** (refer to 45.1101)

45.05 **Demography and Population Studies.** A group of instructional programs (see 45.0501)

45.0501 **Demography and Population Studies.** An instructional program that describes the systematic study of population models and population phenomena, and related problems of social structure and behavior. Includes instruction in population growth, spatial distribution, mortality and fertility factors, migration, dynamic population modeling, population estimation and projection, mathematical and statistical analysis of population data, population policy studies, and applications to problems in economics and government planning.

------- **Applied Mathematics, General.** (refer to 27.0301)

------- **Mathematical Statistics.** (refer to 27.0501)

------- **Sociology.** (refer to 45.1101)

45.06 **Economics.** A group of instructional programs (see 45.0601)

45.0601 **Economics, General.** An instructional program that generally describes the systematic study of the production, conservation and allocation of resources in conditions of scarcity, together with the organizational frameworks related to these processes. Includes instruction in economic theory, micro- and macroeconomics, comparative economic systems, money and banking systems, international economics, quantitative analytical methods, and applications to specific industries and public policy issues.

-------- **Agricultural Economics.** (refer to 01.0103)

-------- **Business/Managerial Economics.** (refer to 52.0601)

-------- **Consumer Economics and Science.** (refer to 19.0402)

45.0602 **Applied and Resource Economics.** An instructional program that describes the application of economic principles and analytical techniques to the study of particular industries, activities, or the exploitation of particular resources. Includes instruction in economic theory; microeconomic analysis and modelling of specific industries, commodities; the economic consequences of resource allocation decisions; regulatory and consumer factors; and the technical aspects of specific subjects as they relate to economic analysis.

45.0603 **Econometrics and Quantitative Economics.** An instructional program that describes the systematic mathematical and statistical analysis of economic phenomena and problems. Includes instruction in economic statistics, optimization theory, cost/benefit analysis, price theory, economic modeling, and economic forecasting and evaluation.

-------- **Applied Mathematics, General.** (refer to 27.0301)

-------- **Operations Research.** (refer to 27.0302)

-------- **Mathematical Statistics.** (refer to 27.0501)

45.0604 **Development Economics and International Development.** An instructional program that describes the systematic study of the economic development process and its application to the problems of specific countries and regions. Includes instruction in economic development theory, industrialization, land reform, infrastructural development, investment policy, the role of governments and business in development, international development organizations, and the study of social, health, and environmental influences on economic development.

-------- **International Agriculture.** (refer to 01.0701)

-------- **International Relations and Affairs.** (refer to 45.0901)

45.0605 **International Economics.** An instructional program that describes the systematic study and analysis of international commercial behavior and trade policy. Includes instruction in international trade theory, tariffs and quotas, commercial policy, trade factor flows, international finance and investment, currency regulation and trade exchange rates and markets, international trade negotiation, and international payments and accounting policy.

-------- **International Finance.** (refer to 52.0806)

-------- **International Business.** (refer to 52.1101)

-------- **International Business Marketing.** (refer to 52.1403)

45.0699 **Economics, Other.** Any instructional program in economics not described above.

45.07 **Geography.** A group of instructional programs (see 45.0701).

45.0701 **Geography.** An instructional program that describes the systematic study of the spatial distribution and interrelationships of people, natural resources, plant and animal life. Includes instruction in historical and political geography, cultural geography, economic and physical geography, regional science, cartographic methods, remote sensing, spatial analysis, and applications to areas such as land-use planning, development studies, and analyses of specific countries, regions, and resources.

45.0702 **Cartography.** An instructional program that describes the systematic study of map-making and the application of mathematical, computer, and other techniques to the science of mapping geographic information. Includes instruction in cartographic theory and map projections, computer-assisted cartography, map design and layout, photogrammetry, air photo interpretation, remote sensing, cartographic editing, and applications to specific industrial, commercial, research, and governmental mapping problems.

------- **Surveying.** (refer to 15.1102)

45.08 **History.** A group of instructional programs (see 45.0801)

45.0801 **History, General.** An instructional program that generally describes the study and interpretation of the past, including the gathering, recording, synthesizing and criticizing of evidence and theories about past events. Includes instruction in historiography; historical research methods; studies of specific periods, issues and cultures; and applications to areas such as historic preservation, public policy, and records administration.

----- **Classical and Ancient Near Eastern Languages and Literatures.** (refer to 16.12 Series)

------- **Historic Preservation, Conservation and Architectural History.** (refer to 30.1201)

------- **Medieval and Renaissance Studies.** (refer to 30.1301)

------- **Theater Literature, History and Criticism.** (refer to 50.0505)

------- **Art History, Criticism and Conservation.** (refer to 50.0703)

------- **Music History and Literature.** (refer to 50.0902)

45.0802 **American (United States) History.** An instructional program that describes the study of the development of American society, culture, and institutions from the Pre-Columbian period to the present. Includes instruction in American historiography, American history sources and materials, historical research methods, and applications to the study of specific themes, issues, periods, and institutions.

------- **American Studies/Civilization.** (refer to 05.0102)

45.0803 **European History.** An instructional program that describes the study of the development of European society, culture, and institutions from the origins to the present. Includes instruction in European historiography, European history sources and materials, historical research methods, and applications to the study of specific themes, issues, periods, and institutions.

------- **European Studies.** (refer to 05.0106)

45.0804 **History and Philosophy of Science.** An instructional program that describes the study of the historical evolution of scientific theories and science applications and technologies, as well as the philosophy of science and its historical socio-economic context. Include instruction in the concepts and methods of philosophical inquiry, historiography of science, and research methods in the history of the scientific and engineering disciplines, including mathematics.

------- **Science, Technology and Society.** (refer to 30.1501)

45.0805 **Public/Applied History and Archival Administration.** An instructional program that describes the application of history and administrative skills to the recording of public events and the management of related historical resources. Includes instruction in historical research methods, archives and records management, the planning and administration of public records services and history projects, and applications to specific problems in public organizations, government agencies, foundations, and records facilities.

------- **Library Science/Librarianship.** (refer to 25.0101)

------- **Museum Studies/Museology.** (refer to 30.1401)

45.0899 **History, Other.** Any instructional program in history not described above.

45.09 **International Relations and Affairs.** A group of instructional programs (see 45.0901)

45.0901 **International Relations and Affairs.** An instructional program that describes the systematic study of international politics and institutions, and the conduct of diplomacy and foreign policy. Includes instruction in international relations theory, foreign policy analysis, national security and strategic studies, international law and organization, the comparative study of specific countries and regions, and the theory and practice of diplomacy.

----- **Area Studies.** (refer to 05.01 Series)

-------- **Peace and Conflict Studies.** (refer to 30.0501)

------- **Development Economics and International Development.** (refer to 45.0604)

45.10 **Political Science and Government.** A group of instructional programs (see 45.1001)

45.1001 **Political Science and Government, General.** An instructional program that describes the systematic study of political institutions and behavior. Includes instruction in political philosophy, political theory, comparative government and politics, political parties and interest groups, public opinion, political research methods, studies of the government and politics of specific countries, and studies of specific political institutions and processes.

-- **Area, Ethnic and Cultural Studies.** (refer to 05. Series)

------- **International Relations and Affairs.** (refer to 45.0901)

45.1002 **American Government and Politics (United States).** An instructional program that describes the systematic study of United States political institutions and behavior. Includes instruction in American political theory, political parties and interest groups, state and local governments, Constitutional law, federalism and national institutions, executive and legislative politics, judicial politics, popular attitudes and media influences, political research methods, and applications to the study of specific issues and institutions.

------- **American Studies/Civilization.** (refer to 05.0102)

------- **Public Administration.** (refer to 44.0401)

------- **Public Policy Analysis.** (refer to 44.0501)

45.1003 **Political Science and Government, Other.** Any instructional program in political science and government not described above.

45.11 **Sociology.** A group of instructional programs (see 45.1101)

45.1101 **Sociology.** An instructional program that describes the systematic study of human social institutions and social relationships. Includes instruction in social theory, sociological research methods, social organization and structure, social stratification and hierarchies, dynamics of social change, family structures, social deviance and control, and applications to the study of specific social groups, social institutions, and social problems.

-- **Area, Ethnic and Cultural Studies.** (refer to 05. Series)

------- **Social Psychology.** (refer to 42.1601)

------- **Social Work.** (refer to 44.0701)

------- **Criminology.** (refer to 45.0401)

------- **Demography and Population Studies.** (refer to 45.0501)

45.12 **Urban Studies/Affairs.** A group of instructional programs (see 45.1201)

45.1201 **Urban Studies/Affairs.** An instructional program that describes the application of social science principles to the study of urban institutions and the forces influencing urban social and political life. Includes instruction in urban theory, the development and evolution of urban areas, urban sociology, principles of urban and social planning, and the politics and economics of urban government and services.

------- **City/Urban, Community and Regional Planning.** (refer to 04.03 Series)

45.99 **Social Sciences, Other.** A group instructional programs (see 45.9999)

45.9999 **Social Sciences, Other.** Any instructional program in social sciences not described above.

46. **CONSTRUCTION TRADES.** A summary of groups of instructional programs that prepare individuals to apply technical knowledge and skills in the building, inspecting, and maintaining of structures and related properties.

46.01 **Masons and Tile Setters.** A group of instructional programs (see 46.0101)

* 46.0101 **Mason and Tile Setter.** An instructional program that prepares individuals to apply technical knowledge and skills in the laying and/or setting of brick, concrete block, hard tile, marble and related materials, using trowels, levels, hammers, chisels, and other hand tools.

------- [Brick, Block and Stonemasonry.] (deleted, included under 46.0101)

------- [Tile Setting.] (deleted, included under 46.0101)

------- [Brickmasonry, Stonemasonry and Tile Setting, Other.] (deleted, included under 46.0101)

46.02 **Carpenters.** A group of instructional programs (see 46.0201)

* 46.0201 **Carpenter.** An instructional program that prepares individuals to apply technical knowledge and skills to lay out, fabricate, erect, install, and repair wooden structures and fixtures, using hand and power tools. Includes instruction in areas such as common systems of framing, construction materials, estimating, blueprint reading and finish carpentry techniques.

46.03 **Electrical and Power Transmission Installers.** A group of instructional programs (see 46.0301)

* 46.0301 **Electrical and Power Transmission Installer, General.** An instructional program that prepares individuals to apply technical knowledge and skills to install, operate, maintain, and repair residential, commercial, and industrial electrical systems, and the power lines that transmit electricity from its source of generation to its place of consumption.

* 46.0302 **Electrician.** An instructional program that prepares individuals to apply technical knowledge and skills to install, operate, maintain, and repair electric apparatus and systems such as residential, commercial, and industrial electric-power wiring; and D.C. and A.C. motors, controls, and electrical distribution panels. Includes instruction in the use of test equipment.

* 46.0303 **Lineworker.** An instructional program that prepares individuals to apply technical knowledge and skills to install, operate, maintain and repair local, long- distance, and rural electric power cables and communication lines; erect and construct pole and tower lines; and install underground lines and cables.

* 46.0399 **Electrical and Power Transmission Installers, Other.** Any instructional program in electrical and power transmission installation not described above.

46.04 **Construction and Building Finishers and Managers.** A group of instructional programs that prepare individuals to apply technical knowledge and skills to the finishing, inspection, and maintenance of structures and related properties.

* 46.0401 **Building/Property Maintenance and Manager.** An instructional program that prepares individuals to apply technical knowledge and skills in order to keep a

building functioning, and to service a variety of types of structures including commercial and industrial buildings and mobile homes. Includes instruction in the basic maintenance and repair skills required to service building air conditioning, heating, plumbing, electrical, major appliances and other mechanical systems.

------- [Concrete Placing and Finishing.] (deleted, included under 46.0499)

* 46.0403 **Construction/Building Inspector.** An instructional program that prepares individuals to apply technical knowledge and skills to inspect and oversee construction of buildings, dams, highways, and other structures, in order to ensure that procedures and materials comply with plans, specifications, codes and regulations.

------- **Construction/Building Technology/Technician.** (refer to 15.1001)

------- [Drywall Installation. (deleted, included under 46.9999)

------- Floor Covering Installation.] (deleted, included under 46.9999)

------- [Glazing.] (deleted, included under 46.9999)

------- [Insulation Installation.] (deleted, included under 46.9999)

* 46.0408 **Painter and Wall Coverer.** An instructional program that prepares individuals to apply technical knowledge and skills to finish exterior and interior surfaces by applying protective or decorative coating materials, such as paint, lacquer, and wallpaper. Includes instruction in surface preparation; selecting, preparing, and applying paints and other coatings; hanging wallpaper; and equipment operation and maintenance.

------- [Plastering.] (deleted, included under 46.9999)

------- [Roofing.] (delete, included under 46.9999)

* 46.0499 **Construction and Building Finishers and Managers, Other.** Any instructional program in construction and building finishing and management not described above.

46.05 **Plumbers and Pipefitters.** A group of instructional programs (see 46.0501)

* 46.0501 **Plumber and Pipefitter.** An instructional program that prepares individuals to apply technical knowledge and skills to lay out, assemble, install, and maintain piping fixtures and piping systems for steam, hot water, heating, cooling, drainage, lubricating, sprinkling, and industrial processing systems. Includes instruction in material selection and use of tools to cut, bend, join, and weld pipes.

------- [Pipefitting and Steamfitting.] (deleted, included under 46.0501)

------- [Plumbing.] (deleted, included under 46.0501)

------- [Plumbing, Pipefitting and Steamfitting, Other.] (deleted, included under 46.0501)

46.99 **Construction Trades, Other.** A group of instructional programs (see 46.9999)

* 46.9999 **Construction Trades, Other.** Any instructional program in construction trades not described above.

47. **MECHANICS AND REPAIRERS.** A summary of groups of instructional programs that prepare individuals to apply technical knowledge and skills in the adjustment, maintenance, part replacement, and repair of tools, equipment, and machines.

47.01 **Electrical and Electronics Equipment Installers and Repairers.** A group of instructional programs (see 47.0101)

* 47.0101 **Electrical and Electronics Equipment Installer and Repairer, General.** An instructional program that generally prepares individuals to apply technical knowledge and skills to operate, maintain, and repair electrical and electronic equipment. Includes instruction in electrical circuitry, simple gearing, linkages and lubrication of machines and appliances, and the use of testing equipment.

* 47.0102 **Business Machine Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to maintain and repair a wide variety of office machines such as electric typewriters, word processing and dictation machines, calculators, data-processing equipment, duplicating machines, and mailing machines. Includes instruction in diagnostic techniques, the use of testing equipment, and the principles of mechanics, electricity, and electronics as they relate to the repair of business machines.

* 47.0103 **Communications Systems Installer and Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to assemble, install, operate, maintain, and repair one- and two-way communications equipment and systems, including television cable systems and mobile or stationary communication devices. Includes instruction in diagnostic techniques, the use of testing equipment, and the principles of mechanics, electricity, and electronics as they relate to the repair of communications systems.

* 47.0104 **Computer Installer and Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to assemble, install, operate, maintain, and repair computers and related instruments. Includes instruction in power supplies, number systems,memory structure, buffers and registers, microprocessor design, peripheral equipment, programming, and networking.

------- **Computer Maintenance Technology/Technician.** (refer to 15.0402)

* 47.0105 **Industrial Electronics Installers and Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to assemble, install, operate, maintain, and repair electrical/electronic equipment used in industry and manufacturing. Includes instruction in installing, maintaining and testing various types of equipment.

* 47.0106 **Major Appliance Installer and Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to repair, install, and service

		major gas, electric, and microwave consumer appliances such as stoves, refrigerators, dryers, water heaters, washers, dishwashers, and commercial units such as ice makers and coffee makers.
	-------	[Motor Repair.] (deleted, included under 47.0101)
	-------	[Small Appliance Repair.] (deleted, included under 47.0101)
	-------	[Vending and Recreational Machine Repair.] (deleted, included under 47.0101)
*	47.0199	**Electrical and Electronics Equipment Installers and Repairers, Other.** Any instructional program in electrical and electronics equipment installation and repair not described above.
47.02		**Heating, Air Conditioning, and Refrigeration Mechanics and Repairers.** A group of instructional programs (see 47.0201)
*	47.0201	**Heating, Air Conditioning, and Refrigeration Mechanic and Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to repair, install, service and maintain the operating condition of heating, air conditioning, and refrigeration systems. Includes instruction in diagnostic techniques, the use of testing equipment, and the principles of mechanics, electricity, and electronics as they relate to the repair of heating, air conditioning and refrigeration systems.
	-------	**Heating, Air Conditioning and Refrigeration Technology/Technician.** (refer to 15.0501)
	-------	[Cooling and Refrigeration.] (deleted, included under 47.0201)
	-------	[Heating and Air Conditioning.] (deleted, included under 47.0201)
	-------	[Heating, Air Conditioning, and Refrigeration Mechanics, Other.] (include under 47.0201)
47.03		**Industrial Equipment Maintenance and Repairers.** A group of instructional programs (see 47.0302 and 47.0303)
	-------	[Industrial Equipment Maintenance and Repair, General.] (deleted, included under 47.0399)
*	47.0302	**Heavy Equipment Maintenance and Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills in the field maintenance and repair of heavy equipment, and in the general maintenance and overhaul of such equipment. Includes instruction in inspection, maintenance, and repair of tracks, wheels, brakes, operating controls, pneumatic and hydraulic systems, electrical circuitry, engines, and in techniques of welding and brazing.
*	47.0303	**Industrial Machinery Maintenance and Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to repair and maintain industrial machinery and equipment such as cranes, pumps, engines and motors, pneumatic tools, conveyor systems, production machinery, marine deck machinery, and steam propulsion, refinery, and pipeline-distribution systems.

------- [Mine Equipment Maintenance and Repair.] (deleted, included under 47.0399)

------- [Oil and Gas Drilling Equipment Operation and Maintenance.] (deleted, included under 47.0399)

* 47.0399 **Industrial Equipment Maintenance and Repairers, Other.** Any instructional program in industrial equipment maintenance and repair not described above.

47.04 **Miscellaneous Mechanics and Repairers.** A group of instructional programs that prepare individuals to apply technical knowledge and skills to repair and maintain a wide variety of items other than those described elsewhere in the Mechanics and Repairers Series.

* 47.0401 **Instrument Calibration and Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to repair and maintain testing equipment, calibration equipment, instrumentation, meters, measuring devices, and control devices.

------- **Instrumentation Technology/Technician.** (refer to 15.0404)

* 47.0402 **Gunsmith.** An instructional program that prepares individuals to apply technical knowledge and skills to make, repair, maintain, and modify firearms according to blueprints or customer specifications, using specialized hand tools and machines.

* 47.0403 **Locksmith and Safe Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to make, repair, maintain, modify, and open locks; to make keys; to enter and change lock and safe combinations; and install and repair safes.

* 47.0404 **Musical Instrument Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to make, repair, maintain, and tune acoustic and electric musical instruments. Includes instruction in methods and equipment for making musical instruments, electronic instrument amplification systems, techniques of cleaning, and methods of tuning musical instruments.

------- [Operation, Maintenance, and Repair of Audio-Visual Equipment.] (deleted, included under 47.0499)

------- [Sporting Goods Equipment Repair.] (deleted, included under 47.0499)

* 47.0408 **Watch, Clock and Jewelry Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to make, repair, and maintain timepieces, time-measuring devices, and jewelry items. Includes instruction in mechanical timekeeping systems, digital timekeeping systems, timesetting, casting, engraving, polishing, stonesetting, soldering, fine microscopic work, equipment and tool maintenance, redesign and restyling techniques, and customer relations.

* 47.0499 **Miscellaneous Mechanics and Repairers, Other.** Any instructional program in miscellaneous mechanics and repairers not described above.

47.05 **Stationary Energy Sources Installers and Operators.** A group of instructional programs that prepare individuals to install, operate, and maintain large power sources for such purposes as generating electricity, pumping, and heating.

*	47.0501	**Stationary Energy Sources Installer and Operator.** An instructional program that prepares individuals to apply technical knowledge and skills to install, repair, operate, and maintain large power sources for such purposes as generating electricity, pumping, and heating.
*	-------	[Conventional (Non-Nuclear) Electrical Power Generation.] (deleted, included under 47.0501)
	-------	[Pumping Plants.] (deleted, included under 47.0501)
	-------	[Stationary Energy Sources, Other.] (deleted, included under 47.0501)
47.06		**Vehicle and Mobile Equipment Mechanics and Repairers.** A group of instructional programs that prepare individuals to apply technical knowledge and skills to maintain and repair aircraft, land vehicles, ships, construction equipment and portable power equipment.
	-------	[Vehicle and Mobile Equipment Mechanics and Repairers, General.] (deleted, included under 47.0699)
*	47.0603	**Auto/Automotive Body Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to repair, reconstruct and finish automobile bodies, fenders, and external features. Includes instruction in all phases of body work preparation and finishing.
*	47.0604	**Auto/Automotive Mechanic/Technician.** An instructional program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles, trucks, vans and buses. Includes instruction in the diagnosis of malfunctions in and repair of engines; fuel, electrical, cooling, and brake systems; and drive train and suspension systems.
	-------	**Automotive Engineering Technology/Technician.** (refer to 15.0803)
*	47.0605	**Diesel Engine Mechanic and Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain diesel engines in vehicles such as automobiles, buses, ships, trucks, railroad locomotives, and construction equipment; as well as stationary diesel engines in electrical generators and related equipment.
	-------	**Agricultural Power Machinery Operator.** (refer to 01.0204)
*	47.0606	**Small Engine Mechanic and Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain small internal-combustion engines used on portable power equipment such as lawnmowers, chain saws, rotary tillers, and snowmobiles.
*	47.0607	**Aircraft Mechanic/Technician Airframe.** An instructional program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all aircraft components other than engines, propellers, avionics, and instruments. Includes instruction in layout and fabrication of sheet metal, fabric, wood, and other materials into structural members, parts, and fittings, and replacement of damaged or worn parts such as control cables and hydraulic units.
*	47.0608	**Aircraft Mechanic/Technician Powerplant.** An instructional program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of aircraft powerplants and related systems. Instruction includes engine inspection and maintenance, lubrication and cooling, electrical and ignition systems, carburetion, fuels and fuel systems, propeller and fan assemblies.

* 47.0609 **Aviation Systems and Avionics Maintenance Technologist/Technician.** An instructional program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of aircraft operating, control, and electronic systems. Includes instruction in flight instrumentation, aircraft communications and homing systems, radar and other sensory systems, navigation aids, and specialized systems for various types of civilian and military aircraft.

------- **Aeronautical and Aerospace Engineering Technology/Technician.** (refer to 15.0801)

* 47.0610 **Bicycle Mechanic and Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain bicycles and other human-powered vehicles. Includes instruction in lubrication, adjustments of moving parts, and wheel building.

* 47.0611 **Motorcycle Mechanic and Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain motorcycles and other similar powered vehicles. Includes instruction in lubrication and cooling systems, electrical and ignition systems, carburetion, fuel systems and adjustments of moving parts.

* 47.0699 **Vehicle and Mobile Equipment Mechanics and Repairers, Other.** Any instructional program in vehicle and mobile equipment mechanics and repairers not described above.

47.99 **Mechanics and Repairers, Other.** A group of instructional programs (see 47.9999)

* 47.9999 **Mechanics and Repairers, Other.** Any instructional program in mechanics and repairs not described above.

48. **PRECISION PRODUCTION TRADES.** A summary of groups of instructional programs that prepare individuals to apply technical knowledge and skills to create products using techniques of precision craftsmanship or technical illustration.

48.01 **Drafting.** A group of instructional programs (see 48.0101)

* 48.0101 **Drafting, General.** An instructional program that generally prepares individuals to apply technical knowledge and skills to plan and prepare scale pictorial interpretations of engineering and design concepts. Includes instruction in the use of precision drawing instruments, computer-assisted design programs, sketching and illustration, and specification interpretation.

* 48.0102 **Architectural Drafting.** An instructional program that prepares individuals to apply technical knowledge and skills to plan and prepare scale pictorial interpretations of plans and design concepts for buildings or other structures. Includes instruction in creating layouts and designs, architectural blueprints and renderings, and in the use of computer-assisted design programs.

* 48.0103 **Civil/Structural Drafting.** An instructional program that prepares individuals to apply technical knowledge and skills to plan and prepare scale pictorial interpretations of plans and design concepts for construction projects, including topographical profiles, related maps and specifications sheets for use by civil engineers and other land use planning specialists. Includes instruction in performing all stages of design illustration and interpretation from initial concept

to prototype, and the use of computer-assisted design programs.

*	48.0104	**Electrical/Electronics Drafting.** An instructional program that prepares individuals to apply technical knowledge and skills to plan and prepare scale pictorial interpretations of plans and design concepts for wiring diagrams and schematics used by electrical/electronics engineers, electrical contractors and repairers to plan, install and modify electrical equipment and systems. Includes instruction in performing all stages of design illustration and interpretation from initial concept to prototype, and the use of computer-assisted design programs.
*	48.0105	**Mechanical Drafting.** An instructional program that prepares individuals to apply technical knowledge and skills to plan and prepare scale pictorial interpretations of plans and design concepts for mechanical devices and machinery, including vehicles and other major systems. Includes instruction in performing all stages of design illustration and interpretation from initial concept to prototype, and the use of computer-assisted design programs.
*	48.0199	**Drafting, Other.** Any instructional program in drafting not described above.
48.02	**Graphic and Printing Equipment Operators.** A group of instructional programs (see 48.0201)	
*	48.0201	**Graphic and Printing Equipment Operator, General.** An instructional program that generally prepares individuals to apply technical knowledge and skills to plan, prepare and execute commercial and industrial visual image and print products using mechanical, electronic, and digital graphic and printing equipment.
	-------	[Bookbinding.] (deleted, included under 48.0299)
	-------	**Commercial Art.** (moved to 50.0402)
	-------	**Commercial Photography.** (moved to 50.0406)
	-------	**Photographic Technology/Technician.** (refer to 10.0103)
*	48.0205	**Mechanical Typesetter and Composer.** An instructional program that prepares individuals to apply technical knowledge and skills to lay out, compose, and make up typesetting and typecast, by hand and by machine.
*	48.0206	**Lithographer and Platemaker.** An instructional program that prepares individuals to apply technical knowledge and skills to make prints from chemically prepared stone or metal plane surfaces. Includes instruction in platemaking, stripping, lithographic photography, and related processes.
	-------	[Photographic Laboratory and Darkroom.] (deleted, included under 50.0607)
*	48.0208	**Printing Press Operator.** An instructional program that prepares individuals to apply technical knowledge and skills to make ready, operate, and maintain printing presses.
	-------	[Silk Screen Making and Printing.] (deleted, included under 48.0299)
	-------	[Photoengraving.] (deleted, included under 48.0299)
*	48.0211	**Computer Typography and Composition Equipment Operator.** An instructional program that prepares individuals to apply technical knowledge and skills to

design and execute page formats, layouts and text composition, and to make typographical selections using computer graphics and other computer-assisted design programs.

* 48.0212 **Desktop Publishing Equipment Operator.** An instructional program that prepares individuals to apply technical knowledge and skills to plan and execute entire publication tasks using desktop publishing equipment and software, including designing, printing and binding.

* 48.0299 **Graphic and Printing Equipment Operators, Other.** Any instructional program in graphic and printing equipment operation not described above.

48.03 **Leatherworkers and Upholsterers.** A group of instructional programs that prepare individuals to apply technical knowledge and skills to fabricate and repair all types of upholstery and leather goods.

------- [Leatherworking and Upholstering, General.] (deleted, included under 48.0399)

------- [Saddlemaking and Repair.] (deleted, included under 48.0399)

* 48.0303 **Upholsterers.** An instructional program that prepares individuals to apply technical knowledge and skills to install springs, filling, padding, covering and finishing on items such as furniture, automobile seats, caskets, mattresses, and bedsprings.

* 48.0304 **Shoe, Boot and Leather Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to repair all types of footwear, including replacement and mending of worn parts; repairing orthopedic footwear, refinishing and dyeing leather; and repairing other leather goods such as handbags, belts, and luggage.

* 48.0399 **Leatherworkers and Upholsterers, Other.** Any instructional program in leatherworking and upholstering not described above.

----- [Precision Food Production.] (deleted)

------- [Precision Food Production, General.] (deleted, included under 12.0599)

------- **Meatcutter.** (moved to 12.0506)

------- [Slaughtering and Butchering.] (deleted, included under 12.0506)

------- [Precision Food Production, Other.] (deleted, included under 12.0599)

48.05 **Precision Metal Workers.** A group of instructional programs (see 48.0501)

* 48.0501 **Machinist/Machine Technologist.** An instructional program that prepares individuals to apply technical knowledge and skills to plan, manufacture, assemble, test, and repair parts, mechanisms, machines, and structures in which materials are cast, formed, shaped, molded, heat treated, cut, twisted, pressed, fused, stamped or worked.

------- [Foundry Work.] (deleted, included under 48.0599)

* 48.0503 **Machine Shop Assistant.** An instructional program that prepares individuals to apply technical knowledge and skills to fabricate and modify metal parts in support of other manufacturing, repair or design activities, or as an independent business.

------- [Metal Fabrication.] (deleted, included under 48.0501)

------- [Metal Patternmaking.] (deleted, included under 48.0501)

* 48.0506 **Sheet Metal Worker.** An instructional program that prepares individuals to apply technical knowledge and skills to form, shape, bend and fold extruded metals, including the creation of new products, using hand tools and machines such as cornice brakes, forming rolls, and squaring shears.

* 48.0507 **Tool and Die Maker/Technologist.** An instructional program that prepares individuals to apply technical knowledge and skills to operate machine tools used in the forming of metal components, as well as the fabrication of special tools, dies, jigs and fixtures used in cutting, working and finishing metal components.

* 48.0508 **Welder/Welding Technologist.** An instructional program that prepares individuals to apply technical knowledge and skills to unite or separate metal parts by heating, using a variety of techniques and equipment, such as brazing, arc, gas and laser operations.

* 48.0599 **Precision Metal Workers, Other.** Any instructional program in precision metal work not described above.

----- [Precision Work, Assorted Materials.] (deleted)

------- [Industrial Ceramics Manufacturing.] (deleted, included under 48.9999)

------- [Jewelry Design, Fabrication, and Repair.] (deleted, included under 47.0408)

------- [Plastics.] (deleted, included under 15.0607)

------- [Precision Work, Assorted Materials, Other.] (deleted, included under 48.9999)

48.07 **Woodworkers.** A group of instructional programs that prepare individuals to apply technical knowledge and skills to lay out, shape, assemble, finish and repair articles made of wood.

* 48.0701 **Woodworker, General.** An instructional program that prepares individuals to apply technical knowledge and skills to lay out and shape stock; assemble wooden articles; mark, bind, saw, carve, and sand wooden products; repair wooden articles, and use a variety of hand and power tools.

* 48.0702 **Furniture Designer and Maker.** An instructional program that prepares individuals to apply technical knowledge and skills to prepare and execute furniture design projects; assemble and finish furniture articles; repair furniture; and use a variety of hand and power tools.

* 48.0703 **Cabinet Maker and Millworker.** An instructional program that prepares individuals to apply technical knowledge and skills to set up, operate and repair industrial

woodworking machinery, and to use such machinery to design and fabricate wooden components and complete articles.

* 48.0799 **Woodworkers, Other.** Any instructional program in woodworking not described above.

48.99 **Precision Production Trades, Other.** A group of instructional programs (see 48.9999)

* 48.9999 **Precision Production Trades, Other.** Any instructional programs in precision production not described above.

49. **TRANSPORTATION AND MATERIALS MOVING WORKERS.** A summary of groups of instructional programs that prepare individuals to apply technical knowledge and skills to perform tasks and services that facilitate the movement of people or materials.

49.01 **Air Transportation Workers.** A group of instructional programs that prepare individuals to apply technical knowledge and skills to provide in-flight, ground and administrative services to the aviation industry.

49.0101 **Aviation and Airway Science.** An instructional program that generally describes the study of aviation and the aviation industry, including in-flight and ground support operations. Includes instruction in the technical, business, and general aspects of air transportation systems.

* 49.0102 **Aircraft Pilot and Navigator (Professional).** An instructional program that prepares individuals to apply technical knowledge and skills to the flying and/or navigation commercial passenger and cargo, agricultural, public service, corporate and rescue aircraft. Includes instruction in principles of aircraft design and performance; aircraft flight systems and controls; flight crew operations and procedures; radio communications and navigation procedures and systems; airways safety and traffic regulations; and governmental rules and regulations pertaining to piloting aircraft. Programs may qualify individuals to sit for the FAA commercial aircrew examinations.

* 49.0104 **Aviation Management.** An instructional program that prepares individuals to apply technical knowledge and skills to the management of aviation industry operations and services. Includes instruction in airport operations, ground support and flightline operations, passenger and cargo operations, flight safety and security operations, aviation industry regulation, and related business aspects of managing aviation enterprises.

49.0105 **Air Traffic Controller.** An instructional program that prepares individuals to apply technical knowledge and skills to air-traffic management and control, usually with additional training at the FAA Flight Control Center in a cooperative education program. Includes instruction in flight control; the use of radar and electronic scanning devices; plotting of flights; radio communication; interpretation of weather conditions affecting flights; flight instrumentation used by pilots; and maintenance of flight-control center or control-tower log books.

* 49.0106 **Flight Attendant.** An instructional program that prepares individuals to apply technical knowledge and skills to the performance of a variety of personal services conducive to the safety and comfort of airline passengers during flight, including verifying tickets, explaining the use of safety equipment, providing passenger services, and responding to in-flight emergencies.

49.0107 **Aircraft Pilot (Private).** An instructional program that prepares individuals to fly aircraft for personal use, and qualifies individuals to sit for the FAA pilot's license examination. Includes instruction in principles of aircraft design and performance; aircraft flight systems and controls; flight crew operations and procedures; radio communications and navigation procedures and systems; airways safety and traffic regulations; and governmental rules and regulations pertaining to piloting aircraft.

* 49.0199 **Air Transportation Workers, Other.** Any instructional program in aviation and air transportation services not described above.

49.02 **Vehicle and Equipment Operators.** A group of instructional programs that prepare individuals to apply technical knowledge and skills to operate commercial and construction vehicles and mobile equipment.

------- [Vehicle and Equipment Operation, General.] (deleted, include under 49.0299)

* 49.0202 **Construction Equipment Operator.** An instructional program that prepares individuals to apply technical knowledge and skills to operate and maintain a variety of heavy equipment, such as a crawler tractors, motor graders and scrapers, and shovels, including dragline, hoe, and cranes. Includes instruction in digging, ditching, sloping, stripping, grading, backfilling, clearing and excavating.

------- **Agricultural Power Machinery Operator.** (refer to 01.0204)

------- [Material Handling.] (deleted, included under 49.0299)

------- [Mining Equipment Operation.] (deleted, included under 49.0299)

* 49.0205 **Truck, Bus and Other Commercial Vehicle Operator.** An instructional program that prepares individuals to apply technical knowledge and skills to drive trucks and buses, delivery vehicles, for-hire vehicles and other commercial vehicles. Includes instruction in operating gas, diesel, or electrically-powered vehicles; loading and unloading cargo or passengers; reporting delays or accidents on the road; verifying load against shipping papers; arranging transportation for personnel; and keeping records of receipts and fares.

* 49.0299 **Vehicle and Equipment Operators, Other.** Any instructional program in vehicle and equipment operation not described above.

49.03 **Water Transportation Workers.** A group of instructional programs that prepare individuals to apply technical knowledge and skills to perform tasks on or in the water, including diving, fishing, and ship operation and repair services.

------- [Water Transportation, General.] (deleted, included under 49.0399)

------- [Barge and Boat Operations.] (deleted, included under 49.0399)

* 49.0303 **Fishing Technology/Commercial Fishing.** An instructional program that prepares individuals to apply technical knowledge and skills to function as commercial fishermen, fishing operations supervisors, or in related fishing industry operations. Includes instruction in fishing vessel operation; fishing equipment oation and maintenance; equipment repair; catch identification, sorting, and storage; safety procedures; record-keeping; and applicable legal regulations.

* 49.0304 **Diver (Professional).** An instructional program that prepares individuals to apply technical knowledge and skills to function as professional deep-water or scuba divers, diving instructors, or diving support personnel. Includes instruction in the use of diving equipment and related specialized gear; diving safety procedures; operation and maintenance of underwater life-support systems; underwater communication systems; decompression systems; underwater salvage; exploration, rescue, and photography; and installation of underwater mechanical systems and their maintenance, repair or demolition.

------- [Marina Operations.] (deleted, included under 49.0399)

* 49.0306 **Marine Maintenance and Ship Repairer.** An instructional program that prepares individuals to apply technical knowledge and skills to repair outboard and inboard engines; test, maintain, and repair steering devices and electrical systems; repair metal, wood, and fiberglass hulls and vessel components; fabricate and maintain sails; and repair and balance propellers and drive shafts.

------- [Sailors and Deckhands.] (deleted, included under 49.0309)

* 49.0309 **Marine Science/Merchant Marine Officer.** An instructional program that prepares individuals to serve as captains, executive officers, engineers and ranking mates on commercially licensed inland, coastal and ocean-going vessels. Includes instruction in maritime traditions and law; maritime policy; economics and management of commercial marine operations; basic naval architecture and engineering; shipboard power systems engineering; crew supervision; and administrative procedures.

* 49.0399 **Water Transportation Workers, Other.** Any instructional program in water transportation not described above.

49.99 **Transportation and Materials Moving Workers, Other.** A group of instructional programs (see 49.9999)

* 49.9999 **Transportation and Materials Moving Workers, Other.** Any instructional program in transportation and materials moving not described above.

50. **VISUAL AND PERFORMING ARTS.** A summary of groups of instructional programs that describe the creation and interpretation of works and performances that use auditory, kinesthetic, and visual phenomena to express ideas and emotions in various forms, subject to aesthetic criteria.

50.01 **Visual and Performing Arts.** A group of instructional programs (see 50.0101)

* 50.0101 **Visual and Performing Arts.** An instructional program that generally describes an undifferentiated program in the visual and performing arts, and that may prepare individuals in any of the visual artistic media or performing disciplines.

50.02 **Crafts, Folk Art and Artisanry.** A group of instructional programs (see 50.0201)

----- **Fine Arts and Art Studies.** (refer to 50.07 Series)

* 50.0201 **Crafts, Folk Art and Artisanry.** An instructional program that describes the aesthetics, techniques, and creative processes for designing and fashioning objects in one or more of the handcraft or folk art traditions, and that prepares individuals to create in any of these media.

------- **Ceramics Arts and Ceramics.** (moved to 50.0711)

------- **Fiber, Textiles and Weaving Arts.** (moved to 50.0712)

------- [Glass.] (deleted, included under 50.0201)

------- **Metal and Jewelry Arts.** (moved to 50.0713)

------- [Crafts, Other.] (deleted, included under 50.0201)

50.03 **Dance.** A group of instructional programs (see 50.0301)

* 50.0301 **Dance.** An instructional program that prepares individuals to express ideas, feelings, and/or inner visions through the performance of one or more of the dance disciplines, including but not limited to ballet, modern, jazz, ethnic, and folk dance, and that describes the study and analysis of dance as a cultural phenomenon. Includes instruction in choreography, labanotation, dance history and criticism, and dance production.

----- **Drama/Theater Arts and Stagecraft.** (refer to 50.05 Series)

----- **Music.** (refer to 50.09 Series)

------- **Drama and Dance Teacher Education.** (refer to 13.1324)

------- **Dance Therapy.** (refer to 51.2302)

50.04 **Design and Applied Arts.** A group of instructional programs (see 50.0401)

---- **Fine Arts and Art Studies.** (refer to 50.07 Series)

* 50.0401 **Design and Visual Communications.** An instructional program in the applied visual arts that describes the general principles and techniques for effectively communicating ideas and information, and packaging products, to business and consumer audiences, and that may prepare individuals in any of the applied art media.

* 50.0402 **Graphic Design, Commercial Art and Illustration.** An instructional program in the applied visual arts that prepares individuals to use artistic techniques to effectively communicate ideas and information to business and consumer audiences via illustrations and other forms of printed media. Includes instruction in concept design, layout, paste-up, and techniques such as engraving, etching, silkscreen, lithography, offset, drawing and cartooning, painting, collage, and computer graphics.

	-------	[Illustration Design.] (deleted, included under 50.0402)
	-------	**Medical Illustrating.** (refer to 51.2703)
*	50.0404	**Industrial Design.** An instructional program in the applied visual arts that prepares individuals to use artistic techniques to effectively communicate ideas and information to business and consumer audiences via the creation of effective forms, shapes, and packaging for manufactured products. Includes instruction in designing in a wide variety of media, prototype construction, design development and refinement, principles of cost-saving, and product structure and performance criteria relevant to aesthetic design parameters.
	-------	**Engineering Design.** (refer to 14.2901)
	-------	[Theatre Design.] (deleted, included under 50.0502)
*	50.0406	**Commercial Photography.** An instructional program in the applied visual arts that prepares individuals to use artistic techniques to effectively communicate ideas and information to business and consumer audiences, and recording events and people, via film, still and video photography. Includes instruction in specialized camera and equipment operation and maintenance, applications to commercial and industrial needs, and photography business operations.
	-------	**Film/Video and Photographic Arts.** (refer to 50.06 Series)
*	50.0407	**Fashion Design and Illustration.** An instructional program in the applied visual arts that prepares individuals to apply artistic principles and techniques to the professional design of commercial fashions, apparel, and accessories; the illustration of fashion concepts; and the management of fashion development projects. Includes instruction in apparel design; accessory design; the design of men's, women's, and children's wear; flat pattern design; computer-assisted design; concept planning; designing in specific materials; labor and cost analysis; history of fashion; fabric art and printing; and the principles of management and operations in the fashion industry.
	-------	**Clothing/Apparel and Textile Studies.** (refer to 19.0901)
*	50.0408	**Interior Design.** An instructional program in the applied visual arts that prepares individuals to apply artistic principles and techniques to the professional planning, designing, equipping, and furnishing residential and commercial interior spaces. Includes instruction in drafting and graphic techniques; principles of interior lighting, acoustics, systems integration, and color coordination; furniture and furnishings; textiles and their finishing; the history of interior design and period styles; basic structural design; building codes and inspection regulations; and applications to office, hotel, factory, restaurant and housing design.
	-------	**Interior Architecture.** (refer to 04.0501)
	-------	**Interior Environments.** (refer to 19.0603)
*	50.0499	**Design and Applied Arts, Other.** Any instructional program in design and applied arts not described above.

50.05 **Drama/Theater Arts and Stagecraft.** A group of instructional programs that describe the study of drama and the theater and the professional production and performance of dramatic works.

-- **Foreign Languages and Literatures.** (refer to 16. Series)

-- **English Language and Literature/Letters.** (refer to 23. Series)

50.0501 **Drama/Theater Arts, General.** An instructional program that generally describes the study of dramatic works and their performance. Includes instruction in major works of dramatic literature, dramatic styles and types, and the principles of organizing and producing full productions.

* 50.0502 **Technical Theater/Theater Design and Stagecraft.** An instructional program that prepares individuals to apply artistic, technical and dramatic principles and techniques to the communication of dramatic information, ideas, moods, and feelings through technical theater methods. Includes instruction in set design, lighting design, sound effects, theater acoustics, scene painting, property management, costume design, and technical direction and production.

------- **Make-up Artist.** (refer to 12.0406)

* 50.0503 **Acting and Directing.** An instructional program that prepares individuals to communicate dramatic information, ideas, moods, and feelings through the achievement of naturalistic and believable behavior in imaginary circumstances; and to supervise dramatic performance. Includes instruction in voice and acting speech, stage dialects, movement, improvisation, acting styles, theater history, rehearsal management, scene work, directing concepts, script interpretation, and actor coaching.

------- **Speech and Rhetorical Studies.** (refer to 23.1001)

50.0504 **Playwriting and Screenwriting.** An instructional program that describes the principles and techniques for communicating dramatic information, ideas, moods, and feelings through the composition of creative written works for the theater and/or film. Includes instruction in creative writing craft, scene writing, script development, stage and/or camera instructions, line and moment analysis, script reading, script editing, and the creation of full productions.

------- **English Creative Writing.** (refer to 23.0501)

50.0505 **Drama/Theater Literature, History and Criticism.** An instructional program that describes the study of the history, literature, theory, and analysis of written plays, theatrical productions, and theater methods and organization. Includes instruction in historical method; critical theory; literary analysis; the study of themes and archetypes in dramatic literature; the history of acting, directing, and technical theater; and the study of specific historical and cultural styles and traditions.

* 50.0599 **Dramatic/Theater Arts and Stagecraft, Other.** Any instructional program in dramatic/theater arts and stagecraft not described above.

50.06 **Film/Video and Photographic Arts.** A group of instructional programs (see 50.0601)

50.0601 **Film/Cinema Studies.** An instructional program in the visual arts that describes the study of the history, development, theory, and criticism of the film/video arts, as well as the basic principles of film making and film production.

* 50.0602 **Film-Video Making/Cinematography and Production.** An instructional program that prepares individuals to communicate dramatic information, ideas, moods, and feelings through the making and producing of films and videos. Includes instruction in theory of film; film technology and equipment operation; film production; film directing; film editing; cinematographic art; film audio; techniques for making specific types of films and/or videos; and the planning and management of film/video operations.

------- **Radio and Television Broadcasting.** (refer to 09.0701)

------- **Radio and Television Broadcasting Technology/Technician.** (include under 10.0104)

------- [Film Animation.] (deleted, included under 50.0699)

------- [Holography.] (deleted, included under 50.0699)

* 50.0605 **Photography.** An instructional program that describes the principles and techniques of communicating information, ideas, moods, and feelings through the creation of images on photographic film or plates, and that may prepare individuals to be professional photographic artists. Includes instruction in camera and equipment operation and maintenance, film and plate developing, light and composition, films and printing media, color and special effects, photographic art, photographic history, and applications to the photography of various subjects.

------- **Photographic Technology/Technician.** (refer to 10.0103)

------- **Commercial Photography.** (refer to 50.0406)

------- [Video.] (deleted, included under 50.0602)

* 50.0699 **Film/Video and Photographic Arts, Other.** Any instructional program in film/video and photographic arts not described above.

50.07 **Fine Arts and Art Studies.** A group of instructional programs that prepare individuals as professional studio artists and arts managers, and that describe the study of art.

----- **Crafts, Folk Art and Artisanry.** (refer to 50.02 Series)

----- **Design and Commercial Arts.** (refer to 50.04 Series)

50.0701 **Art, General.** An instructional program that generally describes art, including its development and practice. Includes instruction in art appreciation, a basic knowledge of art history, fundamental principles of design and color, and an introduction to various media and studio techniques.

------- **Art Teacher Education.** (refer to 13.1302)

------- **Art Therapy.** (refer to 51.2301)

*	50.0702	**Fine/Studio Arts.** An instructional program that prepares individuals to function as creative artists in the visual and plastic media. Includes instruction in the traditional fine arts media (drawing, painting, sculpture, printmaking) and/or modern media (ceramics, textiles, intermedia, photography); theory of art; color theory; composition and perspective; anatomy; the techniques and procedures for maintaining equipment and managing a studio; and art portfolio marketing.
	-------	**Photography.** (refer to 50.0605)
	-------	[Art Conservation.] (deleted,included under 50.0703)
	50.0703	**Art History, Criticism and Conservation.** An instructional program that describes the study of the historical development of art as social and intellectual phenomenon, the analysis of works of art, and art conservation. Includes instruction in the theory of art, art history research methods, connoisseurship, the preservation and conservation of works of art, and the study of specific periods, cultures, styles, and themes.
	-------	**Historic Preservation, Conservation and Architectural History.** (refer to 30.1201)
	-------	**Museology/Museum Studies.** (refer to 30.1401)
	50.0704	**Arts Management.** An instructional program that prepares individuals to organize and manage art organizations, operations, and facilities. Includes instruction in business and financial management; marketing and fundraising; personnel management and labor relations; event promotion and management; public relations and arts advocacy; arts law; and applications to specific arts activities such as galleries, museums, studios, foundations, and community organizations.
*	50.0705	**Drawing.** An instructional program that prepares individuals creatively and technically to express emotions, ideas, or inner visions through representation by lines made on a surface. Includes instruction in eye-hand coordination; line, value, shape, and perspective; figure and still life drawing; the use of media such as pen and ink, pencil, charcoal, pastel, and brush; and personal style development.
*	50.0706	**Intermedia.** An instructional program that prepares individuals creatively and technically to express emotions, ideas, or inner visions in either two or three dimensions, through simultaneous use of a variety of materials and media.
*	50.0708	**Painting.** An instructional program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by the application of paints and related chemical color substances to canvases or other materials. Includes instruction in color and color mixing; surface preparation; composition; oil and acrylic media; watercolor media; painting techniques; and personal style development.
*	50.0709	**Sculpture.** An instructional program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by creating three-dimensional art works. Includes instruction in the analysis of form in space; round and relief concepts; sculptural composition; modern and experimental methods; different media such as clay, plaster, wood, stone, and metal; techniques such as carving, molding, welding, casting, and modelling; and personal style development.
*	50.0710	**Printmaking.** An instructional program that prepares individuals creatively and

technically to express emotions, ideas, or inner visions by rendering art concepts onto surfaces and transferring images, via ink or dyes, onto paper or fabric. Includes instruction in monochrome and color printing; tonality; chemistry; equipment set-up and maintenance; techniques such as serigraphy, lithography, intaglio, woodcut, block, stencil, relief, etching, and composite; and personal style development.

*	50.0711	**Ceramic Arts and Ceramics.** An instructional program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by producing art works out of clay and similar materials. Includes instruction in handbuilt and wheelthrown techniques; molding; slips and glazes; trimming and decorating; firing and kiln operation; oxidation; mixed media; ceramic murals; and personal style development.
*	50.0712	**Fiber, Textile and Weaving Arts.** An instructional program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by constructing art works from woven or non-woven fabrics and fibrous materials. Includes instruction in weaving techniques and loom operation; non-woven techniques such as knitting, coiling, netting, and crocheting; quilting; dyeing and pigmentation; printing and other finishing techniques; pattern design; tapestry; and personal style development.
*	50.0713	**Metal and Jewelry Arts.** An instructional program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by fashioning art works from gems, other stones, and precious metals. Includes instruction in gemology; metalsmithing and finishing; stone cutting and polishing; metal and non-metal casting and molding; electroforming; metal coloring; enameling; photo etching; lapidary technique and art; design concepts; and personal style development.
*	50.0799	**Fine Arts and Art Studies, Other.** Any instructional program in fine arts and art studies not described above.
50.09	**Music.** A group of instructional programs (see 50.0901)	
	50.0901	**Music, General.** An instructional program that generally describes the study and appreciation of music, and the study of music performance. Includes instruction in principles of harmony, musical notation, musical styles, the historical development of music, and the fundamentals of various musical instruments.
	-------	**Music Teacher Education.** (refer to 13.1312)
	-------	**Religious/Sacred Music.** (refer to 39.0501)
	-------	**Musical Instrument Repairer.** (refer to 47.0404)
	-------	**Music Therapy.** (refer to 51.2305)
	50.0902	**Music History and Literature.** An instructional program that describes the study of the historical evolution of music as a social and intellectual phenomenon, the development of musical instruments and techniques, and the analysis and criticism of musical literature. Includes instruction in music history research methods, aesthetic analysis of musical compositions, history of musical writing and notation, the development of musical instruments, the development of music theory, and the study of specific periods, cultural traditions, styles, and themes.

* 50.0903 **Music - General Performance.** An instructional program that generally prepares individuals to master musical instruments and performing art as solo and/or ensemble performers. Includes instruction on one or more specific instruments.

50.0904 **Music Theory and Composition.** An instructional program that describes the study of the principles of sound manipulation as applied to the creation of music, and the techniques of creating and arranging music. Includes instruction in aural theory, melody, counterpoint, complex harmony, modulation, chromaticism, improvisation, progressions, musical writing, instrumentation, orchestration, electronic and computer applications, studies of specific musical styles, and development of original creative ability.

50.0905 **Musicology and Ethnomusicology.** An instructional program that describes the systematic study of the forms and methods of music art, and the functions of music, in Western and non-Western societies and cultures. Includes instruction in music theory, musicological research methods, and studies of specific cultural styles such as jazz, folk music, rock, ethnic musical traditions, and the music of non-Western cultures.

50.0906 **Music Conducting.** An instructional program that prepares individuals to master the art of leading bands, choirs, orchestras and other ensembles in performance, and related music leadership. Includes instruction in score analysis and arranging, rehearsal and performance leadership, music coaching, arrangement and performance planning, ensemble operations management, and applications to specific school or professional ensembles.

* 50.0907 **Music - Piano and Organ Performance.** An instructional program that prepares individuals to master the piano, organ, or related keyboard instruments and performing art as solo, ensemble, and/or accompanist performers. Includes instruction in piano and keyboard pedagogy, ensemble playing, accompanying, service playing, repertoire, keyboard and pedal skills, recital, and personal style development.

* 50.0908 **Music - Voice and Choral/Opera Performance.** An instructional program that prepares individuals to master the human voice and performing art as solo and/or ensemble performers in concert, choir, opera, or other forms of singing. Includes instruction in voice pedagogy, diction, vocal physiology and exercise, expressive movement, repertoire, recital, and personal style development.

50.0909 **Music Business Management and Merchandising.** An instructional program that prepares individuals to organize and manage music organizations, operations, facilities, and personnel. Includes instruction in business and financial management; marketing and fundraising; personnel management and labor relations; event promotion and management; music products merchandising; artist agency and promotion; music law; and applications to specific activities such as managing theaters, recording studios and companies, bands and other ensembles, individual artists, and music organizations.

* 50.0999 **Music, Other.** Any instructional program in music not described above.

50.99 **Visual and Performing Arts, Other.** A group of instructional programs. (see 50.9999)

* 50.9999 **Visual and Performing Arts, Other.** Any instructional program in visual and performing arts not described above.

51. **HEALTH PROFESSIONS AND RELATED SCIENCES.** A summary of groups of instructional programs that prepare individuals to provide health care, or related research and support services, to individuals or groups.

51.01 **Chiropractic (D.C., D.C.M.).** A group of instructional program (see 51.0707)

51.0101 **Chiropractic (D.C., D.C.M.).** An instructional program that prepares individuals to be independent professional practitioners of chiropractic, either straight or progressive. Includes instruction in chiropractic theory, spinal mechanics, spinal manipulation therapy, and radiologic diagnosis; and may also include principles of neurologic health, nutrition, hydrotherapy, diet and exercise therapy, clinic and practice management, applicable regulations, and patient counseling.

51.02 **Communication Disorders Sciences and Services.** A group of instructional programs that prepare individuals to perform research and/or health care services related to speech, hearing, and language problems.

----- **Communications, General.** (refer to 09.01 Series)

----- **Special Education.** (refer to 13.10 Series)

----- **Speech and Rhetorical Studies.** (refer to 23.10 Series)

51.0201 **Communication Disorders, General.** An instructional program that generally describes the principles and practice of identifying and treating disorders of human speech and hearing, and related problems of social communication and health. Includes instruction in developmental and acquired disorders, basic research and clinical methods, and prevention and treatment modalities.

------- **Education of the Deaf and Hearing Impaired.** (refer to 13.1003)

------- **Education of the Speech Impaired.** (refer to 13.1012)

------- **Speech Teacher Education.** (refer to 13.1331)

51.0202 **Audiology/Hearing Sciences.** An instructional program that describes the scientific study of the anatomy and physiology of the hearing and/or speech organs, their function and malfunction, and related environmental and behavioral topics. Includes instruction in bioacoustics; neuroanatomy of speech, hearing, and language; hearing measurement; communications embryology and congenital defects; hearing aids and related technology; hearing conservation and noise reduction research; and the experimental analysis of hearing, speech, and language disorders.

51.0203 **Speech-Language Pathology.** An instructional program that prepares individuals to provide therapeutic care to persons with physical or behavioral disorders that affect speaking or comprehension. Includes instruction in identifying and assessing speech and language disorders; specific treatment regimes; structure and development of aphasia; specific production, articulation, fluency, motor speech, and voice disorders; psychosocial and educational effects of speech/language disorders; and the planning and management of patient therapy.

51.0204 **Speech Pathology and Audiology.** An instructional program that prepares individuals to provide therapeutic care to persons with hearing and related communications disorders. Includes instruction in the principles of audiology; structure and development of hearing and communications disorders; speech disorder and hearing loss identification and assessment; aural rehabilitation; psychosocial and educational effects of speech and hearing disorders; and the planning and management of patient therapy.

* 51.0205 **Sign Language Interpreter.** An instructional program that prepares individuals to interpret oral speech for the hearing impaired. Includes instruction in American Sign Language or other deaf language, fingerspelling, orientation to deaf culture, and interpreting from signing to voice as well as from voice to signing.

51.0299 **Communication Disorders Sciences and Services, Other.** Any instructional program in communication disorders sciences and services not described above.

51.03 **Community Health Services.** A group of instructional programs that prepare individuals to serve the health needs of communities and groups within communities.

* 51.0301 **Community Health Liaison.** An instructional program that prepares individuals to serve as liaison between public health and other social services, and the recipients of health services in communities. Includes instruction in the basics of human health and nutrition, communicable diseases, environmental health, personal hygiene, care of infants, medications, and family and community services.

------- **Community Psychology.** (refer to 42.0401)

------- **Community Organization, Resources and Services.** (refer to 44.0201)

------- **Clinical and Medical Social Work.** (refer to 51.1503)

------- **Social Work.** (refer to 44.701)

------- [Population and Family Planning.] (deleted, included under 51.0301)

51.04 **Dentistry (D.D.S., D.M.D.).** A group of instructional programs (see 51.0401)

51.0401 **Dentistry (D.D.S., D.M.D.)** An instructional program that prepares individuals for the independent professional practice of dentistry. Includes instruction in the prevention, diagnosis, and treatment of diseases and abnormalities of the teeth and gums and related parts of the oral cavity; related anatomical and physiological principles; professional ethics and standards; and supervised clinical practice.

------- **Pre-Dentistry Studies.** (refer to 51.1101)

51.05 **Dental Clinical Sciences/Graduate Dentistry (M.S., Ph.D.).** A group of instructional programs (see 51.0501)

51.0501 **Dental Clinical Sciences/Graduate Dentistry (M.S., Ph.D.).** An instructional program that generally describes advanced study or research, by dentists or other medical doctors, in dental practice specialties and related sciences such as oral biology, endodontics, oral/maxillofacial surgery, orthodontics, pediatric dentistry, periodontics, dental materials, dental diagnostics, prosthodontics, dental nutrition, dental immunology, and dental pathology.

------- **Dental Residency Programs.** (refer to CHAPTER VI)

51.06 **Dental Services.** A group of instructional programs that prepare individuals to provide dental health care services.

* 51.0601 **Dental Assistant.** An instructional program that prepares individuals to assist a dentist or dental hygienist in performing the functions of a dental practice. Includes instruction in chairside assistance, patient preparation, dental office functions, selected dental office laboratory procedures, and dental radiography.

* 51.0602 **Dental Hygienist.** An instructional program that prepares individuals to practice the cleaning of teeth and related oral health therapies, either independently or in collaboration with dentists. Includes instruction in basic preventive oral health care, oral health education, dental hygiene therapy, initial periodontal therapy, patient examination and counseling, dental radiography, local anesthesia, prosthetic casts, equipment operation and maintenance, and record-keeping.

* 51.0603 **Dental Laboratory Technician.** An instructional program that prepares individuals to make and repair dental prostheses and restorative appliances as prescribed by a dentist. Includes instruction in complete and partial denture construction, crown and fixed bridge fabrication, cast metal partial, customized porcelain and acrylic restorations, and building orthodontic appliances.

* 51.0699 **Dental Services, Other** Any instructional program in dental services not described above.

51.07 **Health and Medical Administrative Services.** A group of instructional programs that describe the management of the administrative aspects of the health care delivery system at the unit, office, building or system levels.

------- [Health Care Planning.] (deleted, included under 51.0799)

51.0701 **Health Systems/Health Services Administration.** An instructional program that prepares physicians and other professionals to develop, plan, and manage health care systems and service networks. Includes instruction in planning and coordination, business and financial management, fund-raising and marketing, public relations, human resources management, technical operations of health care systems, resource allocation, health law, and applications to specific health service situations.

51.0702 **Hospital/Health Facilities Administration.** An instructional program that prepares health and other professionals to apply the principles of management to the running of hospitals and similar health facilities. Includes instruction in building and facility management, planning and coordination, scheduling, business and financial management, fund-raising and marketing, public relations, human resources management and labor relations, technical hospital operations, resource allocation, and health law.

* 51.0703 **Health Unit Coordinator/Ward Clerk.** An instructional program that prepares individuals to perform routine clerical and reception duties in a patient care unit

		within a hospital or other health care facility. Includes instruction in receiving and directing visitors, transcribing medical orders, preparing requisition forms, scheduling appointments and monitoring the location of patients and personnel, under the supervision of a head nurse or ward supervisor.
*	51.0704	**Health Unit Manager/Ward Supervisor.** An instructional program that prepares individuals to supervise and coordinate administrative management functions for one or more patient care units in a health-care facility, under the supervision of a nursing or medical services administrator. Includes instruction in initiating clerical procedures, supervising ward clerks, and serving as a liaison to facility administration and medical staffs.
*	51.0705	**Medical Office Management.** An instructional program that prepares individuals to manage the administrative and business aspects of a medical practice or other health care office. Includes instruction in policy administration, conference planning, scheduling and coordination, managing business records and reports, financial record-keeping, personnel supervision, public relations, administrative aspects of health law, and office operations.
*	51.0706	**Medical Records Administration.** An instructional program that prepares individuals to supervise and manage the preparation, storage, and use of medical records; and the management of related information systems. Includes instruction in the legal and technical aspects of medical records, the design and management of secure data systems, the role of records in medical surveys, and the supervision of medical records technicians and other related staff.
*	51.0707	**Medical Records Technology/Technician.** An instructional program that prepares individuals to classify medical information and prepare records, under the supervision of a medical records administrator. Includes instruction in medical records science, medical terminology, record classification, user needs, indexing, special records systems, computer operation, and applicable laws and regulations.
	-------	**Medical Secretary/Administrative Assistant.** (refer to 52.0404)
*	51.0708	**Medical Transcription.** An instructional program that prepares individuals to execute verbatim medical minutes, reports and orders. Includes instruction in dictation, analysis of written notes or visual evidence, computer and transcription machine operation, formal medical correspondence and report formats and requirements, and applicable laws and regulations.
	-------	**Court Reporter.** (refer to 52.0405)
	-------	[Central Supply Technology] (deleted, included under 51.0799)
*	51.0799	**Health and Medical Administrative Services, Other.** Any instructional program in health and medical administrative services not described above.
51.08		**Health and Medical Assistants.** A group of instructional programs that prepare individuals to provide general or specialized assistance to physicians or other health professionals.
	-------	[Chiropractic Assistant.] (deleted, included under 51.0899)
*	51.0801	**Medical Assistant.** An instructional program that prepares individuals to support physicians by providing assistance during patient examinations, treatment

administration, and monitoring; by keeping patient and related health record information; and by performing a wide range of practice-related duties.

------- **Medical Administrative Assistant/Secretary.** (refer to 52.0404)

* 51.0802 **Medical Laboratory Assistant.** An instructional program that prepares individuals to support laboratory directors and technicians by performing routine clinical laboratory procedures and clerical tasks.

------- **Nursing Assistant.** (refer to 51.1614)

* 51.0803 **Occupational Therapy Assistant.** An instructional program that prepares individuals to support occupational therapists by providing assistance during patient examinations, treatment administration, and monitoring; by keeping patient and related health record information; and by performing a wide range of practice-related duties.

* 51.0804 **Ophthalmic Medical Assistant.** An instructional program that prepares individuals to support ophthalmologists by providing assistance during patient examinations, treatment administration, and monitoring; by keeping patient and related health record information; and by performing a wide range of practice-related duties.

* 51.0805 **Pharmacy Technician/Assistant.** An instructional program that prepares individuals to support pharmacists by providing assistance during patient consultation, counter dispensing operations, and prescription preparation; keeping patient and related health record information; and by performing a wide range of practice-related duties.

* 51.0806 **Physical Therapy Assistant.** An instructional program that prepares individuals to support physical therapists by providing assistance during patient examinations, treatment administration, and monitoring; by keeping patient and related health record information; and by performing a wide range of practice-related duties.

* 51.0807 **Physician Assistant.** An instructional program that prepares individuals to manage the treatment of patients with routine or chronic health problems, in consultation with a physician or under indirect supervision. Includes instruction in patient interviewing and history-taking, counseling, laboratory testing and analysis, administration of medication, minor surgery, prescribing routine drugs, preparing medical reports and referrals to physicians and other specialists.

------- **Dental Assistant.** (refer to 51.0601)

------- [Podiatric Assistant.] (deleted, included under 51.0899)

* 51.0808 **Veterinarian Assistant/Animal Health Technician.** An instructional program that prepares individuals to support veterinarians by providing assistance during animal examinations, treatment administration, and monitoring; by keeping animal and related health record information; and by performing a wide range of practice-related duties.

* 51.0899 **Health and Medical Assistants, Other.** Any instructional program for health and medical assistants not described above.

51.09 **Health and Medical Diagnostic and Treatment Services.** A group of instructional programs that prepare individuals to use medical equipment and materials for diagnostic, immediate care and treatment purposes.

*	51.0901	**Cardiovascular Technology/Technician.** An instructional program that prepares individuals to perform invasive and non-invasive tests to monitor human heart and circulatory system health, and to administer prescribed treatment therapies, under the supervision of a physician. Includes instruction in the administration of tests such as EKG, phonocardiogram, and stress tests; therapeutic procedures such as cardiac catheterization and Holter monitoring; patient preparation; equipment preparation and maintenance; and record-keeping.
	-------	[Dialysis Technology.] (deleted, included under 51.0999)
*	51.0902	**Electrocardiograph Technology/Technician.** An instructional program that prepares individuals to perform examinations of electromotive variations in human heart activity using an electrocardiograph machine, under the supervision of a physician. Includes instruction in patient preparation, equipment operation and maintenance, making minor repairs, and record-keeping.
*	51.0903	**Electroencephalograph Technology/Technician.** An instructional program that prepares individuals to perform examinations of electromotive variations in human brain activity using an electroencephalograph machine, and to make related data analyses, under the supervision of a physician. Includes instruction in patient preparation, equipment operation and maintenance, EEG test procedures, data analysis, determination of brain death, tumor identification, and brain injury and disorder identification.
*	51.0904	**Emergency Medical Technology/Technician.** An instructional program that prepares individuals to perform initial medical diagnosis, treatment, and comprehensive care in medical crises, under the general supervision of a coordinating physician. Includes instruction in all aspects of basic health care; disease, disorder, and injury symptomology and diagnosis; emergency medical treatment procedures for various injuries and disease outbreaks; basic pharmacology; anesthetics; intravenous and other drug administration procedures; obstetrics procedures; basic surgical techniques; emergency medical equipment operation and maintenance; special care of patients exposed to heat, cold, radiation, or contagious disease; and administrative aspects of emergency medicine. Programs may include emergency vehicle operation and patient transportation procedures, depending on level of training.
	-------	Emergency Medical Technology- Ambulance. (deleted, included under 51.1004)
	-------	Emergency Medical Technology- Paramedic. (deleted, included under 51.1004)
*	51.0905	**Nuclear Medical Technology/Technician.** An instructional program that prepares individuals to prepare and administer radioactive isotopes via injections, and to measure glandular and other bodily activity by means of in vitro and in vivo detection and specimen testing. Includes instruction in equipment operation and maintenance, materials storage and safety, patient preparation, and record-keeping.
	-------	[Medical Radiation Dosimetry] (included under 51.1005)
*	51.0906	**Perfusion Technology/Technician.** An instructional program that prepares individuals to operate heart-lung machines and monitor patient condition under the direct supervision of a surgeon. Includes instruction in patient examination and preparation, equipment operation and maintenance, anesthesia, and

operating room procedures.

*	51.0907	**Medical Radiologic Technology/Technician** . An instructional program that prepares individuals to perform diagnostic examinations, and administer therapeutic procedures, using X-Rays and related radiations, under the supervision of a radiologist. Includes instruction in conducting CAT scans (computer tomography), xeradiography, thermography and X-Ray procedures; equipment operation and maintenance; patient preparation; and record-keeping.
	-------	**Health Physics/Radiologic Health.** (refer to 51.2205)
*	51.0908	**Respiratory Therapy Technician.** An instructional program that prepares individuals to perform therapeutic and life-support procedures using respiratory equipment, under the supervision of a physician. Includes instruction in administering inhalants via mist, mask, tent or other procedures; monitor heart-lung machines and other intensive care therapies; anesthesia; emergency procedures; equipment operation and maintenance; storage and safety methods; and record-keeping.
*	51.0909	**Surgical/Operating Room Technician.** An instructional program that prepares individuals to perform general technical support tasks in the operating room before, during, and after surgery. Includes instruction in pre-operation patient and surgical team preparation, handling surgical instruments at tableside, supply inventory maintenance before and during operations, sterilization and cleaning of equipment, maintaining clean and sealed environments, operating room safety procedures, and record-keeping.
*	51.0910	**Diagnostic Medical Sonography Technician.** An instructional program that prepares individuals to perform diagnostic and monitoring procedures using acoustic energy, under the supervision of a physician. Includes instruction in patient preparation, ultrasound testing and examination procedures, sonogram evaluation, record-keeping, and equipment operation and maintenance.
*	51.0999	**Health and Medical Diagnostic and Treatment Services, Other.** Any instructional program in health and medical diagnostic and treatment services not described above.

51.10 **Health and Medical Laboratory Technologies/Technicians.** A group of instructional programs that prepare individuals to perform diagnostic and analytical laboratory procedures that support medical research and practice.

*	51.1001	**Blood Bank Technology/Technician.** An instructional program that prepares individuals to perform classification, analysis, and related tests on banked blood under the supervision of a pathologist, physician, or laboratory director. Includes instruction in laboratory hematology; laboratory and blood bank procedures; blood donor selection; blood collection, classification, storage, and processing procedures; topological and compatibility tests; blood bank inventory and delivery procedures; record-keeping; and personnel and volunteer supervision.
	-------	[Chemistry Technology] (deleted, included under 51.1004)
	-------	[Clinical Animal Technology.] (deleted, included under 51.1099)
	-------	[Clinical Laboratory Aide] (deleted, included under 51.2601)

------- [Clinical Laboratory Assisting.] (deleted, included under 51.0803)

* 51.1002 **Cytotechnologist.** An instructional program that prepares individuals to perform oncological and related pathological analyses of human tissue samples, under the supervision of a pathologist. Includes instruction in pathology laboratory procedures; equipment operation and maintenance; conducting Pap and other test procedures for cancer diagnosis; analytical procedures for other cell abnormalities; slide and tissue sample preparation; and record-keeping.

* 51.1003 **Hematology Technology/Technician.** An instructional program that prepares individuals to perform tests and analyses of patients' blood samples under the supervision of a hospital laboratory director or physician. Includes instruction in laboratory procedures; laboratory hematology; conducting quantitative, qualitative, and coagulation tests on cellular and plasma blood components; equipment operation and maintenance, and record-keeping.

------- [Histologic Technology.] (deleted, included under 51.1099)

* 51.1004 **Medical Laboratory Technician.** An instructional program that prepares individuals to perform general medical laboratory procedures and routines, under the supervision of a physician or laboratory director. Includes instruction in medical laboratory procedures; equipment operation and maintenance; principles of different bacteriological, biological, and chemical test procedures; equipment and sample inventorying and storage; laboratory safety procedures; laboratory assistant supervision; and record-keeping.

51.1005 **Medical Technology.** An instructional program that prepares individuals as independent laboratory scientists and laboratory supervisors in the analysis of human body fluids and tissues. Includes instruction in clinical chemistry, clinical microbiology, clinical immunology, immunohematology, clinical hematology, chemical and physical analytic techniques, equipment technology, data and record systems maintenance and experiment design. Also includes the preparation and interpretation of research and medical reports.

------- [Microbiology Technology.] (deleted, included under 51.1004)

* 51.1006 **Optometric/Ophthalmic Laboratory Technician.** An instructional program that prepares individuals to make prescription lenses and related visual aid equipment, under the supervision of an optician or optometrist. Includes instruction in optical laboratory procedures; principles of vision optics; lens grinding and polishing; contact lens fabrication; glasses construction; equipment operation and maintenance; safety procedures; precision instrument work and testing; prescription interpretation; and record-keeping.

* 51.1099 **Health and Medical Laboratory Technologies/Technicians, Other.** Any instructional program in health and medical laboratory technologies not described above.

51.11 **Health and Medical Preparatory Programs.** A group of instructional programs that prepare individuals for admission to first-professional programs in medical or other health fields.

51.1101 **Pre-Dentistry Studies.** An instructional program that prepares individuals for admission to a first-professional program in dentistry.

51.1102 **Pre-Medicine Studies.** An instructional program that prepares individuals for admission to a first-professional program in allopathic, osteopathic, or podiatric medicine.

51.1103 **Pre-Pharmacy Studies.** An instructional program that prepares individuals for admission to a first-professional program in pharmacy.

51.1104 **Pre-Veterinary Studies.** An instructional program that prepares individuals for admission to a first-professional program in veterinary medicine.

51.1199 **Health and Medical Preparatory Programs, Other.** Any instructional program in health and medical first-professional preparation not described above.

51.12 **Medicine (M.D.).** A group of instructional programs (see 51.0701)

51.1201 **Medicine (M.D.)** An instructional program that prepares individuals for the independent professional practice of allopathic medicine. Includes instruction in the principles and procedures used in the observation, diagnosis, care and treatment of illness, disease, injury, deformity, or other anomalies in humans; ethics and professional standards; and supervised clinical practice.

------- **Physician Assistant.** (refer to 51.0807)

------- **Pre-Medicine Studies.** (refer to 51.1102)

51.13 **Medical Basic Sciences.** A group of instructional programs that describe advanced research in the disciplines that support the clinical practice of medicine.

------- **Health and Medical Biostatistics.** (refer to 51.2204)

------- **Epidemiology.** (refer to 51.2203)

------- **Medical Pharmacology and Pharmaceutical Sciences.** (refer to 51.2003)

51.1301 **Medical Anatomy.** An instructional program that describes advanced research, by medical graduates and others, on the structure, substructure and ultrastructure of the human body, and the relationship of anatomical research to the restoration and preservation of good health.

51.1302 **Medical Biochemistry.** An instructional program that describes advanced research, by medical graduates and others, on the nature and chemical composition of the substances that make up the human body, the changes in these substances, and the understanding and treatment of disease processes.

51.1303 **Medical Biomathematics and Biometrics.** An instructional program that describes advanced research, by medical graduates and others, on the application of mathematical models and principles to the measurement and understanding of the human organism.

51.1304 **Medical Physics/Biophysics.** An instructional program that describes advanced research, by medical graduates and others, on the mechanics, sensory aspects, bioelectric phenomena, muscle function, genetic and molecular fine structures, and membrane transportation mechanisms of the human body.

51.1305 **Medical Cell Biology.** An instructional program that describes advanced research, by medical graduates and others, on the biological structure and function of human cells, including cellular mechanisms, cell-to-cell communication and the pathogenesis of disease in cells.

51.1306 **Medical Genetics.** An instructional program that describes advanced research, by medical graduates and others, on the relationship between inherited traits and characteristics and human health conditions, including inherited metabolic diseases, environmental damage to genetic material, human genetic engineering, and cloning.

51.1307 **Medical Immunology.** An instructional program that describes advanced research, by medical graduates and others, on the relation between immunological system functions and human health conditions, including immune response mechanisms, immunodeficiency, antibody definition and antibody production.

51.1308 **Medical Microbiology.** An instructional program that describes advanced research, by medical graduates and others, on the nature and properties of harmful microorganisms and of the disease processes they induce in humans.

51.1309 **Medical Molecular Biology.** An instructional program that describes advanced research, by medical graduates and others, on the application of molecular and macromolecular studies to the investigation of genetic, hormonal and disease problems in human organisms.

51.1310 **Medical Neurobiology.** An instructional program that describes advanced research, by medical graduates and others, on the anatomy, physiology, biochemistry and molecular biology of the brain, nerve cells and nerve tissue and their relation to human behavior and health.

51.1311 **Medical Nutrition.** An instructional program that describes advanced research, by medical graduates and others, on the chemical nature of food substances; the processes by which the human body ingests, digests, absorbs, transports, utilizes and excretes food and nutrients; and their relation to human behavior and health.

51.1312 **Medical Pathology.** An instructional program that describes advanced research, by medical graduates and others, on the causes and effects of diseases and disease mechanisms in human beings. Includes instruction in renal, cardiovascular, neuro-, pulmonary, bone, liver and gastrointestinal, surgical, autopsy, cellular, biochemical and immunopathology.

51.1313 **Medical Physiology.** An instructional program that describes advanced research, by medical graduates and others, on the functions of the human body and its parts, and their relationship to the restoration and preservation of good health. Includes instruction in cellular, cardiovascular, renal, neuro-, endocrine, gastrointestinal, and respiratory physiology.

51.1314 **Medical Toxicology.** An instructional program that describes advanced research, by medical graduates and others, on the nature and extent of adverse effects of synthetic and naturally occurring chemical substances on human beings. Includes instruction in chemical mechanisms and the specialties of reproductive, developmental, genetic, forensic, inhalation and neurobehavioral toxicology.

51.1399 **Medical Basic Sciences, Other.** Any instructional program in basic medical sciences not described above.

51.14 **Medical Clinical Sciences (M.S., Ph.D.).** A group of instructional programs (see 51.1401)

51.1401 **Medical Clinical Sciences (M.S., Ph.D.).** An instructional program that describes the scientific study, by medical residents and other medical doctors, of specialized medical practice arts and related clinical research. Includes instruction in fields such as pediatrics, anesthesiology, obstetrics, gynecology, oncology, surgery, radiology, internal medicine, neurology, clinical pathology, psychiatry, and others.

------- **Medical Residency Programs.** (refer to CHAPTER VI)

51.15 **Mental Health Services.** A group of instructional programs that prepare individuals to provide counseling and support services related to the care and treatment of persons with mental, emotional or behavioral disorders.

----- **Clinical Psychology.** (refer to 42.02 Series)

----- **Counseling Psychology.** (refer to 42.06 Series)

* 51.1501 **Alcohol/Drug Abuse Counseling.** An instructional program that prepares individuals to counsel drug users, addicts, family members, and associates in a wide variety of settings, using various preventive strategies and treatment regimes. Includes instruction in outreach; patient education; therapeutic intervention methods; diagnostic procedures; addiction symptomology; record-keeping; liaison with community health, social services, law enforcement, and legal services; and applicable regulations.

* 51.1502 **Psychiatric/Mental Health Services Technician.** An instructional program that prepares individuals to assist psychiatrists, psychologists, nurses and other mental health personnel in patient care and treatment. Includes instruction in patient interviewing, data recording, taking vital signs, the supervised administration of routine medication and assisting in examinations and treatment procedures.

51.1503 **Clinical and Medical Social Work.** An instructional program that prepares individuals for the independent practice of social work in mental health clinics, hospitals, and community health service organizations. Includes instruction in psychiatric case work, clinical interviewing techniques, therapeutic intervention strategies, psychological test administration, family counseling, social rehabilitation, record-keeping, and liaison with other community support agencies and services.

------- **Social Work.** (refer to 44.0701)

* 51.1599 **Mental Health Services, Other.** Any instructional program in mental health/human services not described above.

51.16 **Nursing.** A group of instructional programs (see 51.1401)

* 51.1601 **Nursing (R.N. Training)** An instructional program that generally prepares individuals in the knowledge, techniques and procedures for promoting health, providing

care for sick, disabled, informed, or other individuals or groups. Includes instruction in the administration of medication and treatments, assisting a physician during treatments and examinations, referring patients to physicians and other health care specialists, and planning education for health maintenance.

51.1602 **Nursing Administration (Post-R.N.).** An instructional program that prepares registered nurses (R.N.) to manage nursing personnel and services in hospitals and other health care delivery agencies.

51.1603 **Nursing, Adult Health (Post-R.N.).** An instructional program that prepares registered nurses (R.N.) to provide general care for adult patients, including the administration of medication and treatments, assisting a physician during treatments and examinations, referring patients to physicians and other health care specialists, and planning education for health maintenance.

51.1604 **Nursing Anesthetist (Post-R.N.).** An instructional program that prepares registered nurses (R.N.) to administer anesthetics and provide care for patients before, during and after anesthesia.

51.1605 **Nursing, Family Practice (Post-R.N.).** An instructional program that prepares registered nurses (R.N.) to provide general care for family groups and individual health needs in the context of family living, including the administration of medication and treatments, assisting a physician during treatments and examinations, referring patients to physicians and other health care specialists, and planning education for health maintenance.

51.1606 **Nursing, Maternal/Child Health (Post-R.N.).** An instructional program that prepares registered nurses (R.N.) to provide prenatal care to pregnant women and postnatal care to mothers and their infants.

51.1607 **Nursing Midwifery (Post-R.N.).** An instructional program that prepares registered nurses (R.N.) to independently deliver babies and treat mothers in the prenatal, delivery, and post-delivery periods. Includes instruction in pre-delivery screening, physician referral, and the care of infants during the delivery and immediate post-delivery phases.

51.1608 **Nursing Science (Post-R.N.).** An instructional program in research that describes the study of advanced clinical practices, research methodologies, the administration of complex nursing services, and that prepares nurses to further the progress of nursing research through experimentation and clinical applications.

51.1609 **Nursing, Pediatric (Post-R.N.).** An instructional program that prepares registered nurses (R.N.) to provide care for children from infancy through adolescence. Includes instruction in the administration of medication and treatments, assisting physicians, patient examination and referral, and planning and delivering health maintenance and health education programs.

51.1610 **Nursing, Psychiatric/Mental Health (Post-R.N.).** An instructional program that prepares registered nurses (R.N.) to promote mental health and provide nursing care to patients with mental, emotional or behavioral disorders, in mental institutions or other settings.

51.1611 **Nursing, Public Health (Post-R.N).** An instructional program that prepares registered nurses (R.N.) to promote health and provide preventive and curative nursing services for individuals, groups or communities under the supervision of a public health agency.

51.1612 **Nursing, Surgical (Post-R.N.).** An instructional program that prepares registered nurses (R.N.) to provide care to patients before and during surgery, and provide tableside assistance to surgeons.

* 51.1613 **Practical Nurse (L.P.N. Training).** An instructional program that prepares individuals to assist in providing general nursing care under the direction of a registered nurse, physician or dentist. Includes instruction in taking patient vital signs, applying sterile dressings, patient health education and assistance with examinations and treatment.

* 51.1614 **Nursing Assistant/Aide.** An instructional program that prepares individuals to perform routine nursing-related services to patients in hospitals or long-term care facilities, under the training and supervision of a registered nurse or licensed practical nurse.

* 51.1615 **Home Health Aide.** An instructional program that prepares individuals to assist elderly, convalescent or handicapped patients in their homes by providing for their physical, mental, emotional and/or social health care needs, under the supervision of a registered nurse.

* 51.1699 **Nursing, Other.** Any instructional program in nursing not described above.

51.17 **Optometry.** A group of instructional programs (see 51.1501)

51.1701 **Optometry (O.D.)** An instructional program that prepares individuals for the independent professional practice of optometry and that describes the principles and techniques for examining, diagnosing and treating conditions of the visual system. Includes instruction in prescribing glasses and contact lenses, other optical aids, corrective therapies, patient counseling, physician referral, practice management, and ethics and professional standards.

51.18 **Ophthalmic/Optometric Services.** A group of instructional programs that prepare individuals to assist ophthalmologists and/or optometrists in providing clinical services.

* 51.1801 **Opticianry/Dispensing Optician.** An instructional program that prepares individuals to fill prescriptions ordered by ophthalmologists or optometrists and to dispense optical supplies and equipment. Includes instruction in shaping and grinding lenses, frame selection and fitting, patient counseling, supervision of assistants and the operation of a business.

* 51.1802 **Optical Technician/Assistant.** An instructional program that prepares individuals to assist optometrists or ophthalmologist providing diagnostic, treatment and dispensing services. Includes instruction in vision testing, corneal measurement, color screening, patient counseling, eyewear fitting and modification, and office administration duties.

------- **Ophthalmic Medical Assistant.** (refer to 51.0804)

* 51.1803 **Ophthalmic Medical Technologist.** An instructional program that prepares indi-

viduals to perform ophthalmic clinical photography and florescence angiography of the eye, ophthalmic electrophysiological and microbiological procedures, and administer ocular motility and binocular function tests under the supervision of ophthalmologist.

* 51.1804 **Orthoptics.** An instructional program that prepares individuals, under the supervision of an ophthalmologist, to correct vision defects in children and adults via therapeutic exercises. Includes instruction in strabismus, amblyopia, patient care and counseling, and diagnostic testing.

* 51.1899 **Ophthalmic/Optometric Services, Other.** Any instructional program in ophthalmic/optometric services not described above.

51.19 **Osteopathic Medicine (D.O.).** A group of instructional programs (see 51.1701)

51.1901 **Osteopathic Medicine (D.O.)** An instructional program that prepares individuals for the independent professional practice of osteopathy, a system of holistic diagnosis and treatment of health problems. Includes instruction in all accepted allopathic medical diagnostic and treatment methods, plus spinal manipulation; musculoskeletal and nervous system influence on body health; promoting natural defense mechanisms; and the interrelation of the various body systems.

------- **Pre-Medicine Studies.** (refer to 51.1102)

51.20 **Pharmacy.** A group of instructional programs (see 51.1801)

51.2001 **Pharmacy (B.Pharm., Pharm.D.)** An instructional program that prepares individuals for the independent professional practice of pharmacy. Includes instruction in principles of medicinal chemistry, drug behavior, and drug metabolism; mixing, preparing, and dispensing prescription medications; pharmacy practice management; patient advising; ethical and professional standards; and applicable laws and regulations.

------- **Pharmacy Technician/Assistant.** (refer to 51.0805)

------- **Pre-Pharmacy Studies.** (refer to 51.1103)

51.2002 **Pharmacy Administration and Pharmaceutics.** An instructional program that prepares pharmacists to manage pharmaceutical operations and programs in industrial, hospital, and other clinical settings. Includes instructional in business management principles; pharmaceutical laboratory and production operations and organization; social and economic policy aspects of pharmaceutics; and specific applications to such areas as industrial pharmaceutics, clinical pharmaceutics, hospital pharmaceutics, pharmacy industry and distribution studies, and the regulatory aspects of pharmaceutics.

51.2003 **Medical Pharmacology and Pharmaceutical Sciences.** An instructional program that describes the scientific study, by pharmacists and other medical researchers, of drugs, drug behavior, and the actions of chemical substances on human systems and whole organisms. Includes instruction in such areas as biopharmaceutics, pharmacokinetics and dynamics, drug metabolism, bioanalytical assay, pharmacognosy, cosmetic science, neuropharmacology, behavioral effects of drugs, radiopharmacology, and pharmaceutical socioeconomic policy.

------- **Pharmacology, Human and Animal.** (refer to 26.0705)

------- **Medicinal/Pharmaceutical Chemistry.** (refer to 40.0505)

51.2099 **Pharmacy, Other.** Any instructional program in pharmacy not described above.

51.21 **Podiatry (D.P.M., D.P., Pod.D.).** A group of instructional programs (see 51.2101)

51.2101 **Podiatry (D.P.M., D.P., Pod.D.)** An instructional program that prepares individuals for the independent professional practice of podiatric medicine. Includes instruction in the principles and procedures used in the observation, diagnosis, care and treatment of disease, injury, deformity, or other anomalies of the human foot; ethics and professional standards; and supervised clinical practice.

------- **Pre-Medicine Studies.** (refer to 51.1102)

51.22 **Public Health.** A group of instructional programs that prepare individuals to provide publicly supervised health services to community, regional, national and international health services.

51.2201 **Public Health, General.** An instructional program that prepares individuals to plan, implement, and evaluate publicly supervised and administered health care programs and systems. Includes instruction in principles of epidemiology, health law and regulations, law enforcement, biostatistical methods, budget policy and economics, report-making and personnel supervision.

------- **Health Teacher Education.** (refer to 13.1307)

------- **Public Health Nursing.** (refer to 51.1611)

51.2202 **Environmental Health.** An instructional program that prepares public health specialists to monitor and evaluate potential and confirmed environmental health hazards, and to plan and manage environmental health programs. Includes instruction in environmental toxicology, genetic toxicology, biohazard research, test and evaluation procedures, measurement instrumentation and equipment operation, environmental and health law and regulations, and applications to specific environmental health problems.

------- **Environmental Science/Studies.** (refer to 03.0102)

------- **Environmental/Environmental Health Engineering.** (refer to 14.1401)

------- **Environmental Control Technologies.** (refer to 15.05 Series)

51.2203 **Epidemiology.** An instructional program that describes the scientific study, by public health scientists and other medical researchers, of the distribution of disease in human populations; patterns in the life cycles of infectious diseases; and methods of preventing disease outbreaks and promoting population health.

51.2204 **Health and Medical Biostatistics.** An instructional program that describes the advanced study of the health applications of statistical models and analytical techniques. Includes instruction in descriptive and inferential studies of human populations, the human organism and its biological components.

51.2205 **Health Physics/Radiologic Health.** An instructional program that describes the scientific measurement of radiation levels and dosages affecting human beings, and that prepares individuals to monitor radiation health. Includes instruction in radiation dosimetry methods; the health effects of natural and man-made radiation; operation and maintenance of test and monitoring equipment; and applicable standards and regulations pertaining to radiation emissions.

51.2206 **Occupational Health and Industrial Hygiene.** An instructional program that prepares public health specialists to monitor and evaluate health standards related to industrial and commercial workplaces and locations. Includes instruction in occupational health and safety standards and regulations; requirements of particular jobs and industrial processes; test and monitoring equipment operation and maintenance; industrial toxicology; worker health and safety education; and the analysis of job-related equipment, behavior, practices, and protective gear.

------- **Quality Control and Safety Technologies.** (refer to 15.07 Series)

51.2207 **Public Health Education and Promotion.** An instructional program that prepares public health specialists to provide specialized educational and informational services to populations affected by disease outbreak, health hazards, or who are at risk. Includes instruction in health publicity, public relations, public health campaign management, preparation of public health teaching aids and instructional materials, and applications to specific public health problems and campaign audiences.

------- [Public Health Laboratory Science.] (deleted, included under 51.1099)

------- [Public Health Practice and Management.] (deleted, included under 51.2201)

51.2299 **Public Health, Other.** Any instructional program in public health not described above.

51.23 **Rehabilitation/Therapeutic Services.** A group of instructional programs that prepare individuals to provide assistance in stabilizing and/or improving diagnosed health problems.

51.2301 **Art Therapy.** An instructional program that prepares individuals to employ art as a tool to assist patients in overcoming physical disability, resolving emotional conflicts and enhancing communications with others.
------- [Corrective Therapy.] (deleted, included under 51.2199)

51.2302 **Dance Therapy.** An instructional program that prepares individuals to employ dance as a tool to assist patients in overcoming physical disability, resolving emotional conflicts and enhancing communications with others.

* 51.2303 **Hypnotherapy.** An instructional program that prepares individuals to employ hypnosis as a tool to assist patients in reducing physical pain, resolving emotional conflicts and enhancing communications with others. Includes instruction in trance inducement and its relation to other healing arts specialties.

51.2304 **Movement Therapy.** An instructional program that prepares individuals to employ hands-on repatterning and verbal instruction as a tool to assist patients in overcoming physical disability, resolving emotional conflicts and enhancing communications with others. Includes instruction in physiological patterning/cognitive-motor functioning, movement analysis and performance, psychological/emotional expression and health maintenance and improvement.

	51.2305	**Music Therapy.** An instructional program that prepares individuals to employ music as a tool to assist patients in overcoming physical disability, resolving emotional conflicts and enhancing communications with others. Includes instruction in leading and monitoring individual and group musical activities with patients who suffer from physical or mental disorders.
*	51.2306	**Occupational Therapy.** An instructional program that prepares individuals to employ self-care, work and play activities as therapeutic regimes for patients in order to increase independent functioning, enhance development and assist recovery from disability. Includes instruction in adapting therapeutic tasks or environments to achieve maximum independence and enhance the quality of life for each patient.
	-------	[Occupational Therapy Aide.] (deleted, included under 51.2601)
	-------	**Occupational Therapy Assistant.** (refer to 51.0803)
	-------	[Orthopedic Assisting.] (deleted, included under 51.0999)
*	51.2307	**Orthotics/Prosthetics.** An instructional program that prepares individuals, under the supervision of a physician and in consultation with therapists, to make and fit orthoses and prostheses. Includes instruction in design, crafting and production techniques, properties of materials, anatomy and physiology, and patient counseling.
*	51.2308	**Physical Therapy.** An instructional program that prepares individuals, upon referral by a physician, to evaluate patients and plan and execute treatment programs to prevent or remediate physical dysfunction, relieve pain and prevent further disability. Includes instruction in patho- and therapeutic kinesiology, equipment design and maintenance, treatment regimes, and the evaluation of skeletal, neurological and cardiovascular disorders. Also includes instruction in patient counseling, personnel supervision and record-keeping.
	--------	[Physical Therapy Aide.] (deleted, included under 51.2601)
	-------	**Physical Therapy Assistant.** (refer to 51.0806)
*	51.2309	**Recreational Therapy.** An instructional program that prepares individuals to plan, organize, and direct medically approved programs of leisure activity to promote patient physical and mental health and functioning in social interactions. Includes instruction in volunteer and staff supervision, patient evaluation and monitoring, behavioral therapy, and recreation program and predischarge planning.
	-------	[Recreational Therapy Aide.] (deleted, included under 51.2601)
	-------	[Recreational Therapy Assisting.] (deleted, included under 51.2601)
	-------	**Respiratory Therapy Technician.** (refer to 51.0908)
	-------	[Respiratory Therapy Assisting]. (deleted, included under 51.0908)
	-------	[Speech/Hearing Therapy Aide] (deleted, included under 51.2601)
*	51.2310	**Vocational Rehabilitation Counseling.** An instructional program that prepares individuals, under the supervision of physicians or psychologists, to assist patients in coping with physical and/or mental disabilities that affect work.

includes instruction in vocational counseling, employment assistance and placement, patient evaluation and monitoring, administering psychological and psychomotor tests, and the planning of training programs.

* 51.2399 **Rehabilitation/Therapeutic Services, Other.** An instructional program in rehabilitation/therapeutic services not described above.

51.24 **Veterinary Medicine (D.V.M.).** A group of instructional programs (see 51.2201)

51.2401 **Veterinary Medicine (D.V.M.)** An instructional program that prepares individuals for the independent professional practice of veterinary medicine. Includes instruction in the principles and procedures used in the observation, diagnosis, care and treatment of illness, disease, injury, deformity, or other anomalies in animals; ethics and professional standards; and supervised clinical practice.

-------- **Agricultural Animal Health.** (refer to 02.0203)

-------- **Pre-Veterinary Studies.** (refer to 51.1104)

51.25 **Veterinary Clinical Sciences (M.S., Ph.D.).** A group of instructional programs (see 51.2501)

51.2501 **Veterinary Clinical Sciences (M.S., Ph.D.).** An instructional program that describes the scientific study, by veterinarians, of the clinical specializations and supporting applied sciences related to the practice of veterinary medicine. Includes instruction in areas such as veterinary anatomy; veterinary physiology; veterinary pharmacology; veterinary radiology; veterinary pathology; veterinary toxicology; veterinary microbiology; veterinary preventive medicine; veterinary parasitology; veterinary immunology; veterinary bacteriology; veterinary virology; large animal surgery and medicine; small animal surgery and medicine; avian medicine; theriogenology; laboratory animal science; and animal nutrition.

-------- **Veterinary Residency Programs.** (refer to CHAPTER V)

51.26 **Miscellaneous Health Aides.** A group of instructional programs (see 51.2301)

* 51.2601 **Health Aide.** Any of a group of instructional programs that prepare individuals to perform routine care and assistance duties for patients, under the direct supervision of other health care professionals, and/or to perform routine maintenance and general assistance duties in health care laboratories.

-------- **Nurse Assistant/Aide.** (refer to 51.1614)

-------- **Home Health Aide.** (refer to 51.1615)

51.27 **Miscellaneous Health Sciences and Allied Health Services.** A group of instructional programs that prepare individuals in health-related subjects and fields not included in Health Sciences and Allied Health Services Series described above.

* 51.2701 **Acupuncture and Oriental Medicine.** An instructional program that prepares individuals to administer Oriental and related traditional treatment therapies, and dispense traditional herbal and other medications, as independent practitioners.

Includes instruction in acupuncture, moxibustion, Oriental pharmacology, Oriental medical theory and principles, diagnostic procedures, patient counseling, and related health care arts.

* 51.2702 **Medical Dietician.** An instructional program that prepares individuals to plan and administer special diets in clinical situations, under the supervision of or in consultation with physicians or other health professionals. Includes instruction in the principles of medical nutrition; the use of nutrition as a treatment regime; the management of health care facility food services; special menu planning and food preparation; and patient education and counseling.

51.2703 **Medical Illustrating.** An instructional program that prepares individuals to demonstrate medical facts by the creation of illustrations such as drawings, models, photographs, and films; either independently or under physicians' supervision. Includes instruction in illustrating live treatment situations as well as working from data, notes and samples.

51.2704 **Naturopathic Medicine.** An instructional program that prepares individuals to provide primary care and promote patient health through the use of natural therapies and related physiological, psychological and mechanical methods. Includes instruction in natural law, phytotherapy, electrotherapy, physiotherapy, mechanotherapy, naturopathic manipulation, minor surgery, and herbal remedies.

51.2705 **Psychoanalysis.** An instructional program that prepares individuals to provide psychotherapy to individuals and groups, based on the psychodynamic theory evolved from the work of Freud, Adler and Jung. Includes instruction in personality theory, dream analysis, free association and transference theory and techniques, psychodynamic theory, developmental processes, applications to specific clinical conditions, practice standards and management, and client relations.

51.99 **Health Professions and Related Services, Other.** A group of instructional programs (see 51.9999)

* 51.9999 **Health Professions and Related Sciences, Other.** Any instructional program in health professions and related sciences not described above.

52. **Business Management and Administrative Services.** A summary of groups of instructional programs that prepare individuals to perform managerial, research, and technical support functions related to the commercial and/or non-profit production, buying, and selling of goods and services.

52.01 **Business.** A group of instructional programs (see 52.0101)

* 52.0101 **Business, General.** An instructional program that generally describes the world of business, including the processes of interchanging goods and services (buying, selling and producing), business organization, and accounting as used in profit-making and nonprofit public and private institutions and agencies. Programs may prepare individuals to apply business principles and techniques in various occupational settings.

------- [Business and Management, General.] (deleted, included under 52.0101)

------- **Business Teacher Education (Vocational).** (refer to 13.1303)

------- **Business Home Economics.** (refer to 19.0201)

52.02 **Business Administration and Management.** A group of instructional programs (see 52.0201).

* 52.0201 **Business Administration and Management, General.** An instructional program that generally prepares individuals to plan, organize, direct, and control the functions and processes of a firm or organization. Includes instruction in management theory, human resources management and behavior, accounting and other quantitative methods, purchasing and logistics, organization and production, marketing, and business decision making.

----- **Agricultural Business and Management.** (refer to 01.01 Series)

------- **Engineering/Industrial Management.** (refer to 14.3001)

------- **Sport and Fitness Administration/Management.** (refer to 31.0504)

------- **Aviation Management.** (refer to 49.0104)

------- **Arts Management.** (refer to 50.0204)

------- **Music Business Management and Merchandising.** (refer to 50.2909)

------- **Health Care and Services Administration.** (refer to 51.0702)

------- **Hospital and Health Facilities Administration.** (refer to 51.0703)

* 52.0202 **Purchasing, Procurement and Contracts Management.** An instructional program that prepares individuals to manage and/or administer the processes by which a firm or organization contracts for goods and services to support its operations, as well as contracts to sell to other firms or organizations. Includes instruction in contract law, negotiations, buying procedures, government contracting, cost and price analysis, vendor relations, contract administration, auditing and inspection, relations with other firm departments, and applications to special areas such as high-technology systems, international purchasing, and construction.

52.0203 **Logistics and Materials Management.** An instructional program that prepares individuals to manage and coordinate all logistical functions in an enterprise, ranging from acquisitions to receiving and handling, through internal allocation of resources to operations units, to the handling and delivery of output. Includes instruction in acquisitions and purchasing, inventory control, storage and handling, just-in-time manufacturing, logistics planning, shipping and delivery management, transportation, quality control, resource estimation and allocation, and budgeting.

* 52.0204 **Office Supervision and Management.** An instructional program that prepares individuals to supervise and manage the operations and personnel of business offices and management-level divisions. Includes instruction in employee supervision, management, and labor relations; budgeting; scheduling and coordination; office systems operation and maintenance; office records management, organization, and security; office facilities design and space management; preparation and evaluation of business management data; and public relations.

	-------	**Medical Office Management.** (refer to 51.0705)
*	52.0205	**Operations Management and Supervision.** An instructional program that prepares individuals to manage and direct the physical and/or technical functions of a firm or organization, particularly those relating to development, production, and manufacturing. Includes instruction in principles of general management, manufacturing and production systems, plant management, equipment maintenance management, production control, industrial labor relations and skilled trades supervision, strategic manufacturing policy, systems analysis, productivity analysis and cost control, and materials planning.
	-------	[Product Management.] (deleted, included under 52.0205)
	-------	[Trade and Industrial Supervision and Management.] (deleted, included under 52.0205)
*	52.0206	**Non-Profit and Public Management.** An instructional program that prepares individuals to manage the business affairs of non-profit corporations, including foundations, educational institutions, associations, and other such organizations, and public agencies and governmental operations. Includes instruction in business management, principles of public administration, principles of accounting and financial management, human resources management, taxation of non-profit organizations, and business law as applied to non-profit organizations.
	-------	**Public Administration.** (refer to 44.0401)
*	52.0299	**Business Administration and Management, Other.** Any instructional program in business and administration not described above.
52.03	**Accounting.**	A group of instructional programs (see 52.0301)
*	52.0301	**Accounting.** An instructional program that prepares individuals to practice the profession of accounting and to perform related business functions. Includes nstruction in accounting principles and theory, financial accounting, managerialaccounting, cost accounting, budget control, tax accounting, legal aspects of accounting, auditing, reporting procedures, statement analysis, planning and consulting, business information systems, accounting research methods, professional standards and ethics, and applications to specific for-profit, public, and non-profit organizations.
*	52.0302	**Accounting Technician.** An instructional program that prepares individuals to provide technical administrative support to professional accountants and other financial management personnel. Includes instruction in posting transactions to accounts, record-keeping systems, accounting software operation, and general accounting principles and practices.
	-------	[Accounting, Bookkeeping, and Related Programs, General.] (deleted, included under 52.0302)
	-------	[Accounting and Computing.] (deleted, included under 52.0302)
	-------	[Bookkeeping.] (deleted, included under 52.0302)

------- [Machine Billing, Bookkeeping, and Computing.] (deleted, included under 52.0302)

------- [Accounting, Bookkeeping, and Related Programs, Other.] (deleted, included under 52.0399)

* 52.0399 **Accounting, Other.** Any instructional program in accounting not described above.

52.04 **Administrative and Secretarial Services.** A group of instructional programs that prepare individuals to provide administrative and office support services.

* 52.0401 **Administrative Assistant/Secretarial Science, General.** An instructional program that generally prepares individuals to perform the duties of administrative assistants and/or secretaries and stenographers. Includes instruction in business communications, principles of business law, word processing and data entry, office machines operation and maintenance, office procedures, public relations, secretarial accounting, filing systems and records management, and report preparation.

------- [Secretarial and Related Programs, General.] (deleted, included under 52.0401)

------- [Secretarial.] (deleted, included under 52.0401)

------- [Stenographic.] (deleted, included under 52.0401)

------- [Word Processing.] (deleted, included under 52.0401)

* 52.0402 **Executive Assistant/Secretary.** An instructional program that prepares individuals to perform the duties of special assistants and/or personal secretaries for business executives and top management. Includes instruction in business communications, principles of business law, public relations, scheduling and travel management, secretarial accounting, filing systems and records management, conference and meeting recording, report preparation, office equipment and procedures, office supervisory skills, and professional standards and legal requirements.

* 52.0403 **Legal Administrative Assistant/Secretary.** An instructional program that prepares individuals to perform the duties of special assistants and/or personal secretaries for lawyers, judges, and legal counsels. Includes instruction in business and legal communications, principles of law, public relations, scheduling and travel management, secretarial accounting, filing systems and records management, conference and meeting recording, report preparation, office equipment and procedures, office supervisory skills, legal terminology and research methods, and professional standards and legal requirements.

------- **Paralegal/Legal Assistant.** (refer to 22.0103)

* 52.0404 **Medical Administrative Assistant/Secretary.** An instructional program that prepares individuals to perform the duties of special assistants and/or personal secretaries for physicians, hospital and health services administrators, and other health professionals. Includes instruction in business and medical communications, principles of health services operations, public relations, scheduling and travel management, secretarial accounting, filing systems and records management, conference and meeting recording, report preparation, office equipment and procedures, office supervisory skills, medical terminology,

		medical legal and business procedures, and professional standards and legal requirements.
	-------	**Medical Assistant.** (refer to 51.0801)
*	52.0405	**Court Reporter.** An instructional program that prepares individuals to record examinations, testimony, judicial opinions, judges' charges to juries, judgments or sentences of courts, or other formal legal proceedings by machine shorthand or other acceptable procedures. Includes instruction in specialized terminology, procedures and equipment, and professional standards and applicable regulations.
	-------	**Medical Transcription.** (refer to 51.0708)
*	52.0406	**Receptionist.** An instructional program that prepares individuals to perform public relations duties for a business, organization, or answering service. Includes instruction in telephone answering techniques, responding to information requests, keeping caller and/or visitor records, placing business calls, operating telephone switchboards and/or other communications equipment, relaying incoming and interoffice calls, schedule maintenance, and public relations skills.
*	52.0407	**Information Processing/Data Entry Technician.** An instructional program that prepares individuals to support business information operations by using computer equipment to enter, process, and retrieve data for a wide variety of administrative purposes. Includes instruction in using basic business software and hardware; business computer networking; principles of desktop publishing; preparing mass mailings; compiling and editing spreadsheets; list maintenance; preparing tables and graphs; receipt control; and preparing business performance reports.
	-------	[Business Data Entry Equipment Operation.] (deleted, included under 52.0407)
*	52.0408	**General Office/Clerical and Typing Services.** An instructional program that prepares individuals to provide basic administrative support under the supervision of office managers, administrative assistants, secretaries, and other office personnel. Includes instruction in typing, keyboarding, filing, general business correspondence, office equipment operation, and communications skills.
	-------	[Typing, General Office, and Related Programs, General.] (deleted, included under 52.0408)
	-------	[Clerk-Typist.] (deleted, included under 52.0408)
	-------	[Correspondence Clerk.] (deleted, included under 52.0408)
	-------	[General Office Clerk.] (deleted, included under 52.0408)
	-------	[Shipping, Receiving, and Stock Clerk.] (deleted, included under 52.0499)
	-------	[Traffic Rate and Transportation Clerk.] (deleted, included under 52.0499)
	-------	[Secretarial and Related Programs, Other.] (deleted, included under 52.0499)
	-------	[Typing, General Office, and Related Programs, Other.] (deleted, included under 52.0499)

* 52.0499 **Administrative and Secretarial Services, Other.** Any instructional program in administrative and secretarial services not described above.

52.05 **Business Communications.** A group of instructional programs (see 52.0501)

* 52.0501 **Business Communications.** An instructional program that prepares individuals to function in an organization as a composer, editor and proofreader of business or business-related communications.

------- **Public Relations and Organizational Communications.** (refer to 09.0501)

------- **Home Economics Communication.** (refer to 19.0202)

------- **English Technical and Business Writing.** (refer to 23.1101)

52.06 **Business/Managerial Economics.** A group of instructional programs (see 52.0601)

----- **Economics.** (refer to 45.06 Series)

52.0601 **Business/Managerial Economics.** An instructional program that describes the application of economics principles to the analysis of the organization and operation of business enterprises. Includes instruction in monetary theory, banking and financial systems, theory of competition, pricing theory, wage and salary/incentive theory, analysis of markets, and applications of econometrics and quantitative methods to the study of particular businesses and business problems.

52.07 **Enterprise Management and Operation.** A group of instructional programs that prepare individuals to develop, own, and operate businesses.

* 52.0701 **Enterprise Management and Operation, General.** An instructional program that generally prepares individuals to perform development, marketing and management functions associated with owning and operating a business.

------- **Entrepreneurship.** (refer to 08.0301)

------- [Small Business Management and Ownership.] (deleted, included under 52.0701)

* 52.0702 **Franchise Operation.** An instructional program that prepares individuals to manage and operate franchises. Includes instruction in legal requirements, set-up costs and capitalization requirements, financing, and applications to specific franchise opportunities.

* 52.0799 **Enterprise Management and Operation, Other.** Any instructional program in enterprise management and entrepreneurship not described above.

52.08 **Financial Management and Services.** A group of instructional programs that prepare individuals to provide financial or banking services to individuals or institutions.

* 52.0801 **Finance, General.** An instructional program that generally prepares individuals to plan, manage, and analyze the financial and monetary aspects and performance

of business enterprises, banking institutions, or other organizations. Includes instruction in principles of accounting; financial instruments; capital planning; funds acquisition; asset and debt management; budgeting; financial analysis; and investments and portfolio management.

------- [Banking and Finance.] (deleted, included under 52.0801)

52.0802 **Actuarial Science.** An instructional program that describes the mathematical and statistical analysis of risk, and their applications to insurance and other business management problems. Includes instruction in forecasting theory, quantitative and non-quantitative risk measurement methodologies, development of risk tables, secondary data analysis, and computer-assisted research methods.

----- **Applied Mathematics.** (refer to 27.03 Series)

* 52.0803 **Banking and Financial Support Services.** An instructional program that prepares individuals to perform a wide variety of customer services in banks, insurance agencies, savings and loan companies, and related enterprises. Includes instruction in communications and public relations skills, business equipment operation, and technical skills applicable to the methods and operations of specific financial or insurance services.

------- [Banking and Related Financial Programs, General.] (deleted, included under 52.0803)

------- [Insurance Clerk.] (deleted, included under 52.0803)

------- [Teller.] (deleted, included under 52.0803)

------- [Banking and Related Financial Programs, Other.] (deleted, included under 52.0803)

52.0804 **Financial Planning.** An instructional program that prepares individuals to plan and manage the financial interests and growth of individuals and institutions. Includes instruction in portfolio management, investment management, estate planning, insurance, tax planning, strategic investing and planning, financial consulting services, and client relations.

* 52.0805 **Insurance and Risk Management.** An instructional program that prepares individuals to manage risk in organizational settings and provide risk-aversion services to businesses, individuals, and other organizations. Includes instruction in risk theory, casualty insurance and general liability, property insurance, employee benefits, social and health insurance, loss adjustment, underwriting, and pension planning.

52.0806 **International Finance.** An instructional program that prepares individuals to manage international financial operations and related currency transactions. Includes instruction in international banking, international monetary and financial policy, money and capital markets, foreign exchange, risk analysis, and international cash flow operations.

------- **International Economics.** (refer to 45.0605)

52.0807 **Investments and Securities.** An instructional program that prepares individuals to manage assets placed in capital markets, and related technical operations. Includes instruction in security analysis, debt and equity analysis, investment strategies, securities markets, computer-assisted research, portfolio management, portfolio performance analysis, and applications to specific investment problems and business situations.

* 52.0808 **Public Finance.** An instructional program that prepares individuals to manage the financial assets and budgets of public sector organizations. Includes instruction in public trusts and investments; the laws and procedures used to plan, prepare and administer public agency budgets; and the preparation and analysis of public budget projections and policies.

------- **Public Administration.** (refer to 44.0401)

------- **Public Policy Analysis.** (refer to 44.0501)

------- **Public/Non-Profit Management.** (refer to 52.0206)

* 52.0899 **Financial Management and Services, Other.** Any instructional program in financial management and services not described above.

52.09 **Hospitality Services Management.** A group of instructional programs (see 52.0901)

---- **Hospitality and Recreation Marketing Operations.** (refer to 08.09 Series)

---- **Tourism and Travel Services Marketing Operations.** (refer to 08.11 Series)

* 52.0901 **Hospitality Administration/Management.** An instructional program that prepares individuals to serve as general managers and directors of hospitality operations on a system-wide basis, including both travel arrangements and promotion and the provision of traveler facilities. Includes instruction in principles of operations in the travel and tourism, hotel and lodging facilities, food services, and recreation facilities industries; hospitality marketing strategies; hospitality planning; management and coordination of franchise and unit operations; business management; accounting and financial management; hospitality transportation and logistics; and hospitality industry policies and regulations.

------- **Parks, Recreation and Leisure Facilities Management.** (refer to 31.0301)

* 52.0902 **Hotel/Motel and Restaurant Management.** An instructional program that prepares individuals to manage operations and facilities that provide food and/or lodging services to the traveling public. Includes instruction in hospitality industry principles; supplies purchasing, storage, and control; hotel and restaurant facilities design and planning; hospitality industry law; personnel management and labor relations; financial management; facilities management; marketing and sale promotion strategies; convention and event management; front desk operations; and applications to specific types of hotel, motel, and/or restaurant operations.

------- **Food and Beverage/Restaurant Operations Manager.** (refer to 12.0504)

------- [Recreational Enterprises Management.] (deleted, included under 31.0301)

------- [Resort Management.] (deleted, included under 31.0301)

------- [Restaurant Management.] (deleted, included under 12.0504)

* 52.0903 **Travel-Tourism Management.** An instructional program that prepares individuals

to manage travel-related enterprises and related convention and/or tour services. Includes instruction in travel agency management, tour arranging and planning, convention and event planning, travel industry operations and procedures, tourism marketing and promotion strategies, travel counseling, travel industry law, international and domestic operations, and travel and tourism policy.

* 52.0999 **Hospitality Services Management, Other.** Any instructional program in hospitality service management not described above.

52.10 **Human Resources Management.** A group of instructional programs that prepare individuals to provide employee services and supporting research for businesses, and other organizations.

* 52.1001 **Human Resources Management.** An instructional program that prepares individuals to manage the development of human capital in organizations, and to provide related services to individuals and groups. Includes instruction in personnel and organization policy, human resource dynamics and flows, labor relations, sex roles, civil rights, human resources law and regulations, motivation and compensation systems, work systems, career management, employee testing and assessment, recruitment and selection, managing employee and job training programs, and the management of human resources programs and operations.

------- [Personnel and Training Programs, General.] (deleted, included under 52.1001)

* 52.1002 **Labor/Personnel Relations and Studies.** An instructional program that describes the study of employee-management interactions and the management of issues and disputes regarding working conditions and worker benefit packages, and that may prepare individuals to function as labor or personnel relations specialists. Includes instruction in labor history, policies and strategies of the labor movement, union organization, labor-management negotiation, labor law and contract interpretation, labor economics, welfare and benefit packages, grievance procedures, and labor policy studies.

52.1003 **Organizational Behavior Studies.** An instructional program that describes the scientific study of the behavior and motivations of individuals functioning in organized groups, and its application to business and industrial settings. Includes instruction in organization theory, industrial and organizational psychology, social psychology, sociology of organizations, reinforcement and incentive theory, employee relations strategies, organizational power and influence, organization stratification and hierarchy, leadership styles, and applications of operations research and other methodologies to organizational analysis.

------- **Organizational and Industrial Psychology.** (refer to 42.0901)

------- [Personnel Management.] (deleted, included under 52.1001)

------- [Personnel Assisting.] (deleted, included under 52.1001)

------- [Training Assisting.] (deleted, included under 52.1001)

------- [Personnel and Training Programs, Other.] (deleted, included under 52.1099)

* 52.1099 **Human Resources Management, Other.** Any instructional program in human resources management not described above.

52.11 **International Business.** A group of instructional programs (see 52.1001).

52.1101 **International Business.** An instructional program that prepares individuals to manage international businesses and/or business operations. Includes instruction in the principles and processes of export sales, trade controls, foreign operations and related problems, monetary issues, international business policy, and applications to doing business in specific countries and markets.

------- **International Agriculture.** (refer to 01.0701)

------- **International Economics.** (refer to 45.0605)

------- **International Finance.** (refer to 52.0806)

------- **International Business Marketing.** (refer to 52.1403)

52.12 **Business Information and Data Processing Services.** A group of instructional programs that prepare individuals to provide computer services in business environments, and to manage such services.

* 52.1201 **Management Information Systems and Business Data Processing, General.** An instructional program that generally prepares individuals to provide and manage data systems and related facilities for processing and retrieving internal business information; select systems and train personnel; and respond to external data requests. Includes instruction in cost and accounting information systems, management control systems, personnel information systems, data storage and security, business systems networking, report preparation, computer facilities and equipment operation and maintenance, operator supervision and training, and management information systems policy and planning.

------- [Business Data Processing and Related Programs, General.] (deleted, included under 52.1201)

------- [Computer Installation Management.] (deleted, included under 52.1201)

* 52.1202 **Business Computer Programming/Programmer.** An instructional program that prepares individuals to apply software theory and programming methods to the solution of business data problems. Includes instruction in designing customized software applications, prototype testing, documentation, input specification, and report generation.

------- **Computer Programming.** (refer to 11.0201)

52.1203 **Business Systems Analysis and Design.** An instructional program that prepares individuals to analyze business information needs and prepare specifications and requirements for appropriate data system solutions. Includes instruction in information requirements analysis, specification development and writing, prototype evaluation, and network application interfaces.

------- **Computer Systems Analysis.** (refer to 11.0501)

* 52.1204 **Business Systems Networking and Telecommunications.** An instructional program that prepares individuals to evaluate and resolve business data system hardware and software communication requirements. Includes instruction electronic communications networks, telecommunications theory, network theory, hardware and software interfacing, computer network design and evaluation, distance communications systems, computer systems facilities and support design and evaluation, and applications to specific operational needs regarding voice, text, and data communications.

-------- **Electrical, Electronics and Communications Engineering.** (refer to 14.1001)

-------- **Electrical, Electronic and Communications Engineering Technology/Technician.** (refer to 15.0303)

* 52.1205 **Business Computer Facilities Operator.** An instructional program that prepares individuals to operate mainframe computers and related peripheral equipment in business settings. Includes instruction in mainframe operation and monitoring, peripheral equipment operation and monitoring, disk and tape mounting and storage, printer operations, and related computer facility operations.

------- [Business Computer and Console Operation.] (deleted, included under 52.1208)

------- [Business Data Peripheral Equipment Operation.] (deleted, included under 52.1208)

------- **Business Information Processing/Data Entry Technician.** (refer to 52.0407)

* 52.1299 **Business Information and Data Processing Services, Other.** Any instructional program in business information and data processing services not described above.

52.13 **Business Quantitative Methods and Management Science.** A group of instructional programs that describe the application of scientific and mathematical principles to the study of business problems.

52.1301 **Management Science.** An instructional program that describes the application of mathematical modeling, programming, forecasting and operations research techniques to the analysis of problems of business organization and performance. Includes instruction in optimization theory and mathematical techniques, stochastic and dynamic modeling, operations analysis, and the design and testing of prototype systems and evaluation models.

------- **Industrial Engineering.** (refer to 14.1701)

52.1302 **Business Statistics.** An instructional program that describes the application of mathematical statistics to the description, analysis, and forecasting of business data. Includes instruction in statistical theory and methods, computer applications, data analysis and display, long- and short-term forecasting methods, and market performance analysis.

------- **Operations Research.** (moved to 27.0302)

------- **Mathematical Statistics.** (refer to 27.0501)

52.1399 **Business Quantitative Methods and Management Science, Other.** Any instructional program in business quantitative methods and management science not described above.

52.14 **Marketing Management and Research.** A group of instructional programs that preparers individuals to provide services for moving goods and services from producer to consumer, and to manage such services.

* 52.1401 **Business Marketing and Marketing Management.** An instructional program that prepares individuals to undertake and manage the process of developing consumer audiences and moving products from producers to consumers. Includes instruction in buyer behavior and dynamics, principle of marketing research, demand analysis, cost-volume and profit relationships, pricing theory, marketing campaign and strategic planning, market segments, advertising methods, sales operations and management, consumer relations, retailing, and applications to specific products and markets.

----- **General Marketing Operations.** (refer to 08.0708)

52.1402 **Marketing Research.** An instructional program that prepares individuals to provide analytical descriptions of consumer behavior patterns and market environments to marketing managers and other business decisionmakers. Includes instruction in survey research methods, research design, new product test marketing, exploratory marketing, consumer needs and preference analysis, geographic analysis, and applications to specific products and markets.

52.1403 **International Business Marketing.** An instructional program that prepares individuals to perform marketing activities in enterprises primarily engaged in exporting or importing goods and services in world markets. Includes instruction in international trade controls, foreign trade operations, locating markets, negotiation practices, monetary issues, and international public relations.

* 52.1499 **Marketing Management and Research, Other.** Any instructional program in general marketing and marketing research not described above.

52.15 **Real Estate.** A group of instructional programs (see 52.1501)

* 52.1501 **Real Estate.** An instructional program that prepares individuals to develop, buy, sell, appraise, and manage real property. Includes instruction in land use development policy, real estate law, real estate marketing procedures, agency management, brokerage, property inspection and appraisal, real estate investing, leased and rental properties, commercial real estate, and property management.

52.16 **Taxation.** A group of instructional programs (see 52.1601)

* 52.1601 **Taxation.** An instructional program that prepares individuals to provide tax advice and management services to individuals and corporations. Includes instruction in tax law and regulations, tax record systems, individual and corporate income taxation, tax planning, partnerships and fiduciary relationships, estates and trusts, property depreciation, capital gains and losses, dispositions, transfers, liquidity, valuation, and applications to specific tax problems.

52.99 **Business Management and Administrative Services, Other.** A group of instructional programs (see 52.9999)

------- [Business and Management, Other.] (deleted, included under 52.9999)

------- [Business (Administrative Support), Other.] (deleted, included under 52.9999)

* 52.9999 **Business Management and Administrative Services, Other.** Any instructional program in business management and administrative services not described above.

CHAPTER II

CONSUMER AND HOMEMAKING EDUCATION PROGRAMS

The Consumer and Homemaking vocational education programs listed in this chapter are specifically designed to prepare individuals for the occupation of homemaker and for the dual roles of homemaker and wage earner. These programs may be offered at the elementary, middle and/or high school levels as a part of a comprehensive instructional program.

The Comprehensive Consumer and Homemaking Education program (20.0101) is an instructional program primarily offered at the secondary level that provides general coverage of all of the specific homemaking skills that are separately offered in codes 20.0102 through 20.0199. Comprehensive programs may be offered to adult classes at the secondary level, as well as to traditional students.

The exploratory homemaking program (20.0105) is primarily offered at the middle school or junior high school level or below, and acquaints students with the broad range of offerings available in consumer and homemaking and related occupationally-specific instructional programs.

The specialized instructional programs (codes 20.0102 through 20.0199, excluding 20.0105) are usually offered in grades 11 and 12 to students with particular interests in specific areas, and also to adult learners who seek to acquire or improve specific homemaking skills and knowledge.

20. **VOCATIONAL HOME ECONOMICS.** (refer to Chapter I, 20. Series)

-- **Home Economics.** (refer to 19. Series)

20.01 **Consumer and Homemaking Education.** A group of instructional programs that prepares individuals at all education levels for the occupation of homemaking, emphasizing the acquisition of knowledge and the comprehension of attitudes, standards, values and skills relevant to individual and family life. These programs prepare individuals for the multiple roles of homemaker and wage earner.

20.0101 **Comprehensive Consumer and Homemaking Education.** An instructional program that generally prepares individuals for the occupation of homemaking, emphasizing the acquisition of knowledge and the development of attitudes, standards, values, and skills relevant to individual and family life and nurturing. Includes instruction in consumer education, food and nutrition, family living and parenthood education, child growth and development, housing and home management (including resource management), and clothing and textiles. Also, prepares individuals for balancing work and family roles and enhancing employability skills.

20.0102 **Child Development, Care and Guidance.** An instructional program that prepares individuals to understand children's physical, mental, emotional, and social growth and development. Includes instruction in child care and guidance and actual experience in supervising children.

20.0103 **Clothing and Textiles.** An instructional program that prepares individuals to understand the social, psychological, and physiological aspects of clothing and textiles; the nature, acquisition, and use of clothing and textile products; the selection, construction, maintenance, and alteration of clothing and textile products; and the effect of consumer choices on the individual and family as well as the clothing and textile industry.

20.0104 **Consumer Education.** An instructional program that prepares individuals to understand the values, needs, wants, goals, and resources that enable youth and adults to make rational decisions that contribute to family stability and quality of life. Includes instruction in budgeting and spending plans, use of credit, savings, investments, taxes, consumer buying, and consumer rights and responsibilities.

20.0105 **Exploratory Homemaking.** An instructional program that provides individuals the opportunity to explore home economics subject matter areas. Includes instruction in the development of positive self-concepts; understanding personal growth and development; and relationships with peers and family members in becoming contributing members in the home, school, and community.

20.0106 **Family/Individual Health.** An instructional program that prepares individuals to understand the related aspects of health and wellness with special emphasis on nutrition, emotional health and physical health; the relationship of the health of an individual to the wellness of the family; the prevention of illness; and the basic care of the ill and convalescent in the home, including the elderly, the young child, and the handicapped.

20.0107 **Family Living and Parenthood.** An instructional program that prepares individuals to understand the nature, function, and significance of human relationships within the family/individual units. Includes instruction in the concepts and principles related to various family living conditions, including abuse prevention; the establishment and maintenance of relationships; the preparation for marriage, parenthood, and family life; and the socialization and developmental needs of individuals.

20.0108 **Food and Nutrition.** An instructional program that prepares individuals to understand the principles of nutrition; the relationship of nutrition to health and wellness; the selection, preparation, and care of food; meal management to meet individual and family food needs and patterns of living; food economics and ecology; optimal use of the food dollar; understanding and promoting nutritional knowledge; and the application of related math and science skills.

20.0109 **Home Management.** An instructional program that prepares individuals to understand the establishment and maintenance of a satisfying home and family life, including decision-making regarding human and non-human resources. Includes instruction in the societal and economic influences on individual and family management; values, goals and standards; family economics; the impact of new technologies on life and work; and the organization of activities in the home as a means of successfully balancing work and family roles.

20.0110 **Housing, Home Furnishing and Equipment.** An instructional program that prepares individuals to understand the physical, psychological, and social influences pertaining to the complex housing decisions required for a desirable living environment. Includes instruction in the human and environmental factors influencing the form and use of housing; the varied types of housing; costs, exterior and interior design; home furnishing and equipment; and the selection, use and care of available resources for achieving improved living space to meet individual and family needs.

20.0199 **Consumer and Homemaking Education, Other.** Any instructional program in consumer and homemaking education not described above.

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CHAPTER III

TECHNOLOGY EDUCATION/INDUSTRIAL ARTS PROGRAMS

Technology Education, formerly called Industrial Arts, is generally taught at the middle school or secondary level as a semester or year-long credit program. The purpose of Technology Education is to improve students' understanding of and appreciation for industrial processes and related technologies, and does not usually aim at perfecting job-related skills. Postsecondary awards are not given in Technology Education except for teacher education programs. Teacher education programs in this field should be reported under 13.1309, Technology Teacher Education/Industrial Arts Teacher Education.

21. **TECHNOLOGY EDUCATION/INDUSTRIAL ARTS.** A summary of groups of instructional programs that provide individuals with knowledge and competencies pertaining to aspects of industry and technology, including a variety of learning experiences, and that assist individuals in making informed and meaningful occupational choices as well as preparation for entry into occupational training or education programs.

21.01 **Technology Education/Industrial Arts.** A group of instructional programs (see 21.0101)

21.0101 **Technology Education/Industrial Arts.** An instructional program that describes the concepts, processes and systems that are uniquely technological, such as: the evolution, utilization and significance of technology as related to industry; and its organization, personnel, systems, techniques, resources and products. Includes instruction in technological literacy, basic applied science, specific technologies and their applications, and related methods of research and experimentation.

------- **Technology Teacher Education/Industrial Arts Teacher Education.** (refer to 13.1309)

------- [Construction.] (deleted, included under 21.0101)

------- [Drafting and Design.] (deleted, included under 21.0101)

------- [Electricity/Electronics.] (deleted, included under 21.0101)

------- [Energy, Power, and Transportation.] (deleted, included under 21.0101)

------- [Graphic Arts.] (deleted, included under 21.0101)

------- [Manufacturing/Materials Processing.] (deleted, included under 21.0101)

------- [Industrial Arts, Other.] (deleted, included under 21.0101)

CHAPTER IV

RESERVE OFFICERS' TRAINING CORPS PROGRAMS

The 28. Series refers to instructional programs sponsored and regulated by the U.S. Department of Defense that prepare students for entry into the armed services as commissioned reserve or active duty officers. Such programs may carry academic credit, although not usually full credit for individual courses, and are offerod in two-year and four-year postsecondary institutions. Completions result in the award of a commission (in four-year programs) or approval for transfer to a four-year R.O.T.C. program (for two-year programs). Satisfactory completion of any R.O.T.C. program does not solely depend upon meeting academic requirements, so that it is possible to complete R.O.T.C. coursework yet fail to obtain a commission. Students who fail to complete a full R.O.T.C. program in which they have enrolled will usually be required to finish their military service contract as enlisted personnel.

28. **RESERVE OFFICERS' TRAINING CORPS (R.O.T.C.).** A summary of groups of instructional programs preparing individuals for entry into the armed forces of the United States as cadets or commissioned officers.

28.01 **Air Force R.O.T.C.** A group of instructional programs (see 28.0101)

28.0101 **Air Force R.O.T.C./Air Science.** An instructional program that prepares individuals for commissioning as reserve or active duty officers in the United States Air Force, or for entry into an approved senior A.F.R.O.T.C. commissioning program.

28.03 **Army R.O.T.C.** A group of instructional programs (see 28.0301)

28.0301 **Army R.O.T.C./Military Science.** An instructional program that prepares individuals for commissioning as reserve or active duty officers in the United States Army, or for entry into an approved senior A.R.O.T.C. commissioning program.

28.04 **Navy/Marine Corps R.O.T.C.** A group of instructional programs (see 28.0401)

28.0401 **Navy/Marine Corps R.O.T.C./Naval Science.** An instructional program that prepares individuals for commissioning as reserve or active duty officers in the United States Navy or Marine Corps, or for entry into an approved senior N.R.O.T.C. commissioning program.

CHAPTER V

PERSONAL IMPROVEMENT AND LEISURE PROGRAMS

The programs in the 32., 33., 34., 35., 36. and 37. Series describe areas of educational competence that equip individuals with knowledge and/or skills related to personal growth and leisure-time pursuits. Most of these instructional programs are designed for adult learners and are not formal academic or occupationally specific programs, nor do they result in transferable credit. Awards and completions in these programs are usually informal. These codes and Series are located in Chapter IV to avoid potential confusion with codes and Series in Chapter I, since data for these programs are not routinely collected or analyzed by the United States Department of Education.

32.	**BASIC SKILLS.** A summary of groups of instructional programs that describe fundamental knowledge and skills thatindividuals need in order to function productively in society.
32.01	**Basic Skills.** A group of instructional programs (see 32.0101)
32.0101	**Basic Skills, General.** An instructional program that generally describes fundamental knowledge and skills that individuals need in order to function productively in society.
-------	[Academic and Intellectual Skills.] (deleted)
-------	[Communication Skills.] (deleted)
32.0104	**Computational Skills.** An instructional program that describes the development of computing and other mathematical reasoning abilities.
32.0105	**Job-Seeking/Changing Skills.** An instructional program that describes the development of skills related to job searches and self-marketing. Includes instruction in assessing one's own capabilities and skills; filling out an application; and handling an interview.
-------	[Motor Skills.] (deleted)
32.0107	**Career Exploration/Awareness Skills.** An instructional program that describes the linkage between individual capabilities and needs and the job market. Includes instruction in the variety and scope of available employment, how to access job information, and techniques of self-analysis.
32.0108	**Reading, Literacy and Communication Skills.** An instructional program that describes the development of reading, writing, and speaking abilities that are needed to perform day-to-day tasks. Includes instruction in the use of basic communication skills to develop and transmit ideas and thoughts.
32.0199	**Basic Skills, Other.** Any instructional program in basic skills not described above.

33. **CITIZENSHIP ACTIVITIES.** A summary of groups of instructional programs that prepare individuals for citizenship, and describe how citizens may engage in civic activities.

33.01 **Citizenship Activities.** A group of instructional programs (see 33.0101)

33.0101 **Citizenship Activities, General.** An instructional program that generally prepares individuals for citizenship and describes how citizens may engage in civic activities.

33.0102 **American Citizenship Education.** An instructional program that prepares individuals to take the oath of United States citizenship and to exercise the attendant rights and responsibilities of citizenship.

33.0103 **Community Awareness.** An instructional program that describes local government and history, current issues, and how individuals can keep abreast of important issues that may affect them.

33.0104 **Community Involvement.** An instructional program that describes how individuals may become actively involved in the social, economic and political issues and events affecting them; and the roles and methods that are available to influence community life and public policy.

33.0199 **Citizenship Activities, Other.** Any instructional program in citizenship activities not described above.

34. **HEALTH-RELATED KNOWLEDGE AND SKILLS.** A summary of groups of instructional programs that describe the promotion of personal and family health.

34.01 **Health-Related Knowledge and Skills.** A group of instructional programs that describe the promotion of personal and family health.

------- [Health-Related Activities, General.] (deleted)

34.0102 **Birthing and Parenting Knowledge and Skills.** An instructional program that describes all facets of the mother's and father's roles in family planning, prenatal preparation and care, the birthing experience, post-natal care and the raising of children.

34.0103 **Personal Health Improvement and Maintenance.** An instructional program that describes the principles, techniques, and methods by which individuals can maintain or improve their overall physical and emotional well-being, as well as work on specific areas of personal health.

34.0104 **Addiction Prevention and Treatment.** An instructional program that describes how individuals can avoid addictive substances and behaviors; the methods by which individuals can be treated for various addictions and related behavior problems; and the knowledge and coping skills needed by relatives and associates of addicted individuals.

34.0199 **Health-Related Knowledge and Skills, Other.** Any instructional program in health-related knowledge and skills not described above.

35. **INTERPERSONAL AND SOCIAL SKILLS.** A summary of groups of instructional programs that describe how to effectively interact with others in private, social and business settings.

35.01 **Interpersonal and Social Skills.** A group of instructional programs (see 35.0101)

35.0101 **Interpersonal and Social Skills, General.** An instructional program that generally describes how to effectively interact with others in private, social and business settings.

35.0102 **Interpersonal Relationships Skills.** An instructional program that describes how to increase one's ability to establish and maintain mutually satisfactory ties with other human beings.

35.0103 **Business and Social Skills.** An instructional program that describes how to increase one's ability to function effectively in social and business settings where interpersonal communication is required.

------- [Social Role Engineering.] (deleted)

35.0199 **Interpersonal Social Skills, Other.** Any instructional program in interpersonal social skills not described above.

36. **LEISURE AND RECREATIONAL ACTIVITIES.** A summary of groups of instructional programs that describe the development of an appreciation for and competency in recreational and leisure-related activities.

36.01 **Leisure and Recreational Activities.** A group of instructional programs (see 36.0101)

36.0101 **Leisure and Recreational Activities, General.** An instructional program that generally describes the development of an appreciation for and competency in recreational and leisure-related activities.

36.0102 **Handicrafts and Model-Making.** An instructional program that describes the fashioning of objects of decoration, utility or representation from various materials, including related matters of research, tool use and appreciation.

36.0103 **Board, Card and Role-Playing Games.** An instructional program that describes the rules and techniques of participation and skill-building in competitive activities of skill or chance, such as board games, card games or role-playing activities.

------- [Hobbies.] (deleted)

36.0105 **Home Maintenance and Improvement.** An instructional program that describes the knowledge and skills associated with maintaining living space and related equipment and furnishings, as well as do-it-yourself repairs and improvement projects of varying complexity.

36.0106 **Nature Appreciation.** An instructional program that describes how to increase one's understanding and knowledge of the natural environment in which we live, as well as techniques of wildlife observation and management.

36.0107 **Pet Ownership and Care.** An instructional program that describes how to increase one's ability to care for domesticated animals kept for pleasure or work.

36.0108 **Sports and Exercise.** An instructional program that describes the rules and techniques of participation and skill-building in competitive physical activities, as well as non-competitive physical fitness programs.

36.0109 **Travel and Exploration.** An instructional program that describes particular geographic areas or phenomena, and provides opportunities for organized trips or tours, including related knowledge and skills.

36.0110 **Art.** An instructional program that describes the techniques and methods of creative self-expression in visual or plastic media, such as painting or sculpture.

36.0111 **Collecting.** An instructional program that describes the knowledge and techniques necessary for acquiring and maintaining personal collections of objects, such as autographs, stamps, models, specimens, vehicles and antiques.

36.0112 **Cooking and Other Domestic Skills.** An instructional program that describes the knowledge and skills related to food buying and preparation, home decoration, sewing and other domestic activities, either as hobbies or as routine tasks.

36.0113 **Computer Games and Programming Skills.** An instructional program that describes the knowledge and skills associated with creating, acquiring, maintaining and using computer hardware and software, as well as the playing of computer-based games.

36.0114 **Dancing.** An instructional program that describes the knowledge and skills related to recreational dance, such as square dancing, ballroom dancing, classical or modern dance.

36.0115 **Music.** An instructional program that describes the knowledge and skills associated with personal music appreciation, the playing of a musical instrument, singing or recreational composition.

36.0116 **Reading.** An instructional program that describes the activity of reading for pleasure, either alone or as part of a group experience.

36.0117 **Theater.** An instructional program that describes the knowledge and skills associated with participation in amateur theatrical productions, drama appreciation, and writing amateur plays.

36.0118 **Writing.** An instructional program that describes the knowledge and skills related to creative writing and poetry composition for pleasure or profit, including methods of publication.

36.0199 **Leisure and Recreational Activities, Other.** Any instructional program in leisure and recreational activities not described above.

37. **PERSONAL AWARENESS AND SELF-IMPROVEMENT.** A summary of groups of instructional programs that describe how to develop improved self-awareness, avoid stressful behavior and improve decision-making skills.

37.01 **Personal Awareness and Self-Improvement.** A group of instructional programs that describe how to develop improved self-awareness, avoid stressful behavior and improve decision-making skills.

37.0101 **Self-Awareness and Personal Assessment.** An instructional program that describes how to be aware of one's feelings, to use methods of assessing one's personal attributes and to be aware of how others perceive oneself.

37.0102 **Stress Management and Coping Skills.** An instructional program that describes the knowledge and skills useful in avoiding stressful situations and managing them when they occur, including dealing with complex and long-term stressful relationships.

37.0103 **Personal Decision-Making Skills.** An instructional program that describes how to develop individuals' abilities to assess decisions affecting their lives and to make life choices consistent with needs and beliefs.

37.0104 **Self-Esteem and Values Clarification.** An instructional program that describes the development of personal philosophies and ideas of self-worth, and how to apply such knowledge and skills in everyday circumstances.

------- [Values, Attitudes, and Beliefs.] (deleted)

37.0199 **Personal Awareness and Self-Improvement, Other.** Any instructional program in personnel awareness and self-improvement not described above.

CHAPTER VI

DENTAL, MEDICAL AND VETERINARY RESIDENCY PROGRAMS

Residency programs are designed to prepare medical doctors (M.D.), or osteopaths (D.O.), dentists (D.D.S., D.M.D.), and veterinarians (D.V.M.) for certification as practitioners of recognized specialties in their respective professions. These programs are approved and accredited by designated professional associations and require from one to five years to complete, depending on the program. Medical residencies usually require completion of an internship after the M.D. degree for program entry, while requirements vary for dentistry and veterinary programs. These programs are offered by professional schools, independent teaching hospitals and clinics, and other approved facilities.

Data on residency program enrollments and completions are only partially collected and analyzed by the United States Department of Education. Should a residency program also result in an academic degree completion, such as an M.S. or Ph.D., it would properly by reported under one of the Clinical Sciences codes (51.0501, 51.1401, or 51.2501) in Series 51., rather than in a residency code located in Chapter V.

51.28 **Dental Residency Programs.** A group of instructional programs that prepare dentists in advanced clinical work in special areas of dental practice. Programs may lead to examination for board certification.

----- **Dentistry (D.D.S., D.M.D.).** (refer to 51.04 Series)

----- **Dental Clinical Sciences/Graduate Dentistry (M.S., Ph.D.).** (refer to 51.05 Series)

51.2801 **Dental/Oral Surgery Specialty.** A residency training program that prepares dentists and medical surgeons in advanced clinical training and practice in the surgery of the oral cavity and jaws, including the removal of cancerous and other diseased tissue, removal of teeth, and reconstruction of the jaw and related facial structure.

51.2802 **Dental Public Health Specialty.** A residency training program that prepares dentists in the formulation and delivery of public preventive and curative dental health services.

51.2803 **Endodontics Specialty.** A residency training program that prepares dentists in the etiology, diagnosis, prevention, and treatment of conditions that affect the dental and other periodontal tissues, including pulp canal therapy and root canal therapy.

51.2804 **Oral Pathology Specialty.** A residency training program that prepares dentists in the functional and structural changes that affect the oral cavity, including diagnosis of diseases, abnormalities and tumors.

------- [Oral/Maxial Facial Surgery.] (deleted, included under 51.2801)

51.2805 **Orthodontics Specialty.** A residency training program that prepares dentists in the principles and techniques involved in the prevention and correction of dental malocclusions and oral cavity anomalies.

51.2806 **Pedodontics Specialty.** A residency training program that prepares dentists in the principles and techniques of diagnosing and treating the dental and other oral cavity conditions of children.

51.2807 **Periodontics Specialty.** A residency training program that prepares dentists in the nature and treatment of diseases which affect the mucous membranes, gums and other soft tissues within the oral cavity.

51.2808 **Prosthodontics Specialty.** A residency training program that prepares dentists in the principles and techniques of constructing oral prostheses, and the restoration and maintenance of oral function by the replacement of missing teeth and other oral structures with such artificial devices.

51.2899 **Dental Residency Programs, Other.** Any residency program in dentistry not described above.

51.29 **Medical Residency Programs.** A group of instructional programs that prepare physicians in advanced clinical work in special areas of medical practice. Programs may lead to examination for board certification.

----- **Medicine (M.D.).** (refer to 51.12 Series)

----- **Medical Basic Sciences.** (refer to 51.13 Series)

----- **Medical Clinical Sciences (M.S., Ph.D.).** (refer to 51.14 Series)

----- **Osteopathic Medicine (D.O.).** (refer to 51.19 Series)

51.2901 **Aerospace Medicine Residency.** A residency training program that prepares physicians in the health care of operating crews and passengers of air and space vehicles, plus support personnel. Includes instruction in special conditions of physical and psychological stress, emergency medical procedures, adaptive systems and artificial environments.

51.2902 **Allergies and Immunology Residency.** A residency training program that prepares physicians in the delivery of skilled medical care to patients suffering from allergic, asthmatic and immunologic diseases. Requires completion of a prior program in internal medicine or pediatrics.

51.2903 **Anesthesiology Residency.** A residency training program that prepares physicians in the application of anesthesia for general and specialized surgery and obstetrics, critical patient care and the care of pain problems. Includes instruction in surgical procedures, current monitoring procedures, fluid therapy, pain management, diagnostic and therapeutic procedures outside the operating room and operating room safety. (see also 51.2910)

51.2904 **Blood Banking Residency.** A residency training program that prepares physicians in the medical, technical, research and administrative aspects of operating blood banks. Includes instruction in transfusion and transplantation procedures, logistics and the training and supervision of blood bank technicians.

51.2905 **Cardiology Residency.** A residency training program that prepares physicians in the natural history of cardiovascular disorders in adults and the diagnosis and treatment of diseases of the heart and blood vessels. Includes instruction in coronary care, diagnostic testing and evaluation, invasive and non-invasive therapies and pacemaker follow-up. Requires prior completion of a program in internal medicine. (see also 51.2945)

51.2906 **Chemical Pathology Residency.** A residency training program that prepares physicians in the development, operation and quality control of chemical pathology laboratories and the provision of support and consultative services to other physicians. Includes instruction in instrumentation, analysis, data processing and administration. Requires prior completion of a program in medical pathology.

51.2907 **Child/Pediatric Neurology Residency.** A residency training program that prepares physicians in the diagnosis and management of neurological disorders of the newborn infant, early childhood and adolescence. Requires training in adult neurology and prior partial completion of a program in pediatrics.

51.2908 **Child Psychiatry Residency.** A residency training program that prepares physicians in the diagnosis and treatment of mental, emotional and behavioral disorders of infancy, early childhood and adolescence. Requires completion of the initial segment of a program in psychiatry.

51.2909 **Colon and Rectal Surgery Residency.** A residency training program that prepares physicians in the surgical care of patients with anorectal and colonic diseases. Also includes instruction in diagnostic and therapeutic colonoscopy. Requires prior completion of a program in general surgery.

51.2910 **Critical Care Anesthesiology Residency.** A residency training program that prepares physicians in the administration of anesthesia to patients with acute, chronic or long-term illness and who have multiple organ system derangements. Includes instruction in high-risk and trauma procedures, respiratory therapy and biomedical engineering. Requires prior completion of a program in anesthesiology.

51.2911 **Critical Care Medicine Residency.** A residency training program that prepares physicians in the management of care for patients with acutely life-threatening conditions which may include multiple organ failure. Includes instruction in the management of critical care units, emergency procedures and post-discharge care of former critical care patients. Requires prior completion of a program in internal medicine.

51.2912 **Critical Care Surgery Residency.** A residency training program that prepares physicians in surgical procedures for patients with multiple trauma, critical illness, patients on life support and elderly or very young patients with disease complications. Requires full or partial prior completion of a program in general surgery or another surgical specialty.

------- **Dental/Oral Surgery Specialty.** (refer to 51.2801)

51.2913 **Dermatology Residency.** A residency training program that prepares physicians in the delivery of specialized care to patients with diseases of the skin, hair, nails and mucous membranes. Includes instruction in dermatologic surgical procedures, cutaneous allergies, sexually transmitted diseases, and diagnostic and therapeutic techniques.

51.2914 **Dermatopathology Residency.** A residency training program that prepares physicians in the clinical and microscopic diagnosis and analysis of skin diseases and disorders. Includes instruction in laboratory administration and the supervision and training of support personnel. Requires prior completion of a program in dermatology or pathology.

51.2915 **Diagnostic Radiology Residency.** A residency training program that prepares physicians in the diagnostic use of roentgen, isotopic, ultrasound and other radiant energy imaging techniques. Includes instruction in intervention procedures, safety and imaging science and technology. (see also 51.2936, 51.2958, and 51.2959)

51.2916 **Emergency Medicine Residency.** A residency training program that prepares physicians in the methods, procedures, and techniques of providing and managing immediate health care services. Includes instruction in the initial recognition, stabilization, evaluation and care of the acutely ill or injured patient; patient followup and referral; management of prehospital care; training and supervision of emergency medical personnel; emergency department management; medicolegal and ethical issues; and disaster planning.

51.2917 **Endocrinology and Metabolism Residency.** A residency training program that prepares physicians in the diagnosis and treatment of diseases and disorders of the endocrine glands and metabolic system. Includes instruction in the diagnosis and care of diabetes, hypoglycemia, hormone disorders and sexual disfunction. Requires prior completion of a program in internal medicine. (see also 51.2946)

51.2918 **Family Medicine Residency.** A residency training program that prepares physicians in the provision of regular and long-term care to individuals and family members. Includes instruction in comprehensive care and specialist referral, basic surgery, emergency medical procedures, diagnostic imaging and practice management.

51.2919 **Forensic Pathology Residency.** A residency training program that prepares physicians in the performance of medical autopsies, the analysis of human remains and crime scenes, and the legal follow-up and responsibilities of public pathologists. Requires prior completion of a program in pathology.

51.2920 **Gastroenterology Residency.** A residency training program that prepares physicians in the diagnosis and treatment of patients with digestive and other gastrointestinal disorders. Includes instruction in surgical procedures, cancer of the digestive system, nutrition and malnutrition and counseling the behavioral adjustment of patients with chronic problems. Requires prior completion of a program in internal medicine.

51.2921 **General Surgery Residency.** A residency training program that prepares physicians in the care and treatment of diseases and disorders via invasive procedures and the etiology, pathogenesis, diagnosis and management of physical disorders. Includes instruction in clinical and operative skills, pre-operative and post-operative care, trauma management and endoscopic techniques. (see also 51.2912, 51.2923, 51.2933, 51.2942, 51.2950, 51.2953, 51.2962, and 51.2964)

51.2922 **Geriatric Medicine Residency.** A residency training program that prepares physicians in the care and management of elderly patients in acute, ambulatory, community and long-term care settings, and the treatment of diseases and conditions associated with the aging process. Includes instruction in ethical and legal issues, behavioral aspects of illness, socioeconomic factors in care and rehabilitation therapies. Requires prior completion of a program in family medicine or internal medicine.

51.2923 **Hand Surgery Residency.** A residency training program that prepares physicians in the investigation, preservation and restoration by medical, surgical or physical methods of all structures of the upper extremity which directly affect the form and function of the limb, wrist and hand. Requires prior completion of a program in orthopedic surgery, plastic surgery or general surgery.

51.2924 **Hematology Residency.** A residency training program that prepares physicians in the mechanisms and therapy of diseases of the blood, including patient management, diagnostic tests, biopsies and other procedures. Requires prior completion of a program in internal medicine.

51.2925 **Hematological Pathology Residency.** A residency training program that prepares physicians in the laboratory and analytical procedures for studying all facets of hematologic and coagulation disorders. Includes instruction in the management of hematology laboratories. Requires prior completion of a program in pathology.

51.2926 **Immunopathology Residency.** A residency training program that prepares physicians in the diagnosis, treatment and laboratory management of immunologic diseases. Includes instruction in diagnostic surgical pathology, management of organ transplantation and immunotherapy. Requires prior completion of a program in pathology.

51.2927 **Infectious Disease Residency.** A residency training program that prepares physicians in the natural history, prevention and treatment of major infectious diseases, including sexually transmitted diseases, and the long-term management of patients. Includes instruction in epidemiology, identification and specimen collection techniques, quality assurance and cost containment. Requires prior completion of a program in internal medicine.

51.2928 **Internal Medicine Residency.** A residency training program that prepares physicians in the provision of general medical services to adult patients with a wide range of non-surgical clinical problems. Includes instruction in behavioral aspects of diseases, patient and family counseling and practice management.

51.2929 **Laboratory Medicine Residency.** A residency training program that prepares physicians in the principles and practices of applied medical research and related techniques, equipment, data systems and research design. Includes instruction in the management of medical laboratories in research and health care facilities.

51.2930 **Musculoskeletal Oncology Residency.** A residency training program that prepares physicians in the diagnosis and treatment of musculoskeletal neoplasia, and the application of cancer therapy regimes.

51.2931 **Neonatal-Perinatal Medicine Residency.** A residency training program that prepares physicians in the physiology of the normal neonate, the patho-physiology of the sick infant and the diagnosis and management of problems of the newborn infant. Requires prior completion of a program in pediatrics and obstetrics.

51.2932 **Nephrology Residency.** A residency training program that prepares physicians in the pathogenesis, natural history and management of congenital and acquired diseases of the kidney and urinary tract and renal diseases associated with systemic disorders. Includes instruction in organ transplantation and dialysis therapy. Requires prior completion of a program in internal medicine. (see also 51.2048)

51.2933 **Neurological Surgery/Neurosurgery Residency.** A residency training program that prepare physicians in the diagnosis, evaluation and treatment of disorders of the central, peripheral and autonomic nervous systems, including their supporting systems and vascular supply; and the evaluation and treatment of pathological processes which modify function or activity of the nervous system, including the hypophysis. Includes instruction in critical care management and rehabilitation. Requires prior partial completion of a program in general surgery and another surgical specialty.

51.2934 **Neurology Residency.** A residency training program that prepares physicians in the diagnosis and non-surgical treatment of diseases and abnormalities affecting the nervous system and nerve tissue in adults. Requires prior partial completion of a program in internal medicine. (see also 51.2907)

51.2935 **Neuropathology Residency.** A residency training program that prepares physicians in the laboratory analysis of nerve tissues and the clinical diagnosis of neurological and neuromuscular diseases. Includes instruction in nerve biopsies and necropsies. Requires prior completion of a program in pathology.

51.2936 **Nuclear Medicine Residency.** A residency training program that prepares physicians in the diagnostic, therapeutic and investigational use of radionuclides. Includes instruction in imaging and non-imaging technologies and the design and development instrumentation, procedures and pharmaceutical. Requires prior partial completion of a program in radiology, pathology or internal medicine.

51.2937 **Nuclear Radiology Residency.** A residency training program that prepares physicians in the imaging by external detection of radionuclides and/or biodistribution by external detection of radionuclides for diagnosis of disease. Requires prior partial completion of a program in diagnostic radiology.

51.2938 **Obstetrics and Gynecology Residency.** A residency training program that prepares physicians in the diagnosis, prevention and treatment of diseases of women, especially those affecting the reproductive system, and the comprehensive care and treatment of women before, during and after childbirth.

51.2939 **Occupational Medicine Residency.** A residency training program that prepares physicians in the maintenance of the health of workers, the ability to perform work, the arrangements of work, and the physical and chemical environments of the workplace. Includes instruction in data collection and management and the administration and regulation of occupational medical services.

51.2940 **Oncology Residency.** A residency training program that prepares physicians in the etiology, epidemiology, diagnosis, treatment and therapeutic management of cancers and related clinical neoplastic diseases. Includes instruction in rehabilitation, supportive care and the administration of tumor boards. Requires prior completion of a program in internal medicine. (see also 51.2930, 51.2947 and 51.2958)

51.2941 **Ophthalmology Residency.** A residency training program that prepares physicians in the diagnosis, prevention treatment of ophthalmic diseases and disorders, and ocular pathology procedures. Includes instruction in eye surgery.

51.2942 **Orthopedics/Orthopedic Surgery Residency.** A residency training program that prepares physicians in the investigation, preservation, and restoration of the form and function of the extremities, spine and associated structures by medical, surgical and physical methods. Requires prior partial completion of a program in general surgery, internal medicine or pediatrics. (see also 51.2949)

51.2943	**Otolaryngology Residency.** A residency training program that prepares physicians in the recognition and medical management of diseases, congenital anomalies, disorders and traumas of the head and neck, the air and food passages, and the organs of hearing and speech. Includes instruction in regional surgery. Requires prior partial completion of a program in general surgery.
51.2944	**Pathology Residency.** A residency training program that prepares physicians in the clinical laboratory analysis and diagnosis of disease and anatomic abnormalities. Includes instruction in performing general autopsies, forensic medicine, laboratory management and quality control. (see also 51.2904, 51.2914, 51.2919, 51.2925, 51.2935 and 51.2959)
51.2945	**Pediatric Cardiology Residency.** A residency training program that prepares physicians in the diagnosis and management of diseases and disorders of the cardiovascular and cardiopulmonary systems of infants, children and adolescents. Includes instruction in related public health and community medicine issues. Requires prior completion of a program in pediatrics.
51.2946	**Pediatric Endocrinology Residency.** A residency training program that prepares physicians in the diagnosis and management of endocrine diseases and the regulation of hormone balance in childhood and adolescence. Requires prior completion of a program in pediatrics.
51.2947	**Pediatric Hemato-Oncology Residency.** A residency training program that prepares physicians in the diagnosis and management of hematologic disorders and malignant diseases, including blood and bone marrow function, in infancy, childhood and adolescence. Requires prior completion of a program in pediatrics.
51.2948	**Pediatric Nephrology Residency.** A residency training program that prepares physicians in the diagnosis and management of infants, children and adolescents with renal and genito-urinary problems, hypertension and disorders of body fluid physiology. Requires prior completion of a program in pediatrics.
51.2949	**Pediatric Orthopedics Residency.** A residency training program that prepares physicians in the diagnosis, surgical and non-surgical treatment, and management of musculoskeletal diseases, abnormalities and trauma in infants, children and adolescents. Requires prior completion of a program in orthopedic surgery.
51.2950	**Pediatric Surgery Residency.** A residency training program that prepares physicians in the diagnosis, evaluation and surgical treatment of diseases, disorders and trauma in infants and children. Requires prior completion of a program in general surgery.
51.2951	**Pediatrics Residency.** A residency training program that prepares physicians in the comprehensive care and treatment of all aspects of human growth and development from conception through fetal life, infancy, childhood and adolescence, including preventive and therapeutic regimes. Includes instruction in behavioral aspects of illness, related family and community medicine issues, and emergency and critical care procedures. (see also 51.2945, 51.2946, 51.2947, 51.2948, 51.2949 and 51.2950)
51.2952	**Physical and Rehabilitation Medicine Residency.** A residency training program that prepares physicians in the diagnosis, etiology, treatment, prevention and rehabilitation of neuromusculo-skeletal, cardiovascular, pulmonary and other system disorders common to patients of both sexes and all ages. Includes

instruction in physiatric examinations, design and prescription of rehabilitation strategies and the supervision of rehabilitation teams.

51.2953 **Plastic Surgery Residency.** A residency training program that prepares physicians in the repair, replacement and reconstruction of defects of form and function of the integument and its underlying musculoskeletal system, with emphasis on the craniofacial structures, the oropharynx, the hand, the breast and the external genitalia. Includes instruction in aesthetic as well as reconstructive surgery. Requires prior completion of a program in general surgery.

51.2954 **Preventive Medicine Residency.** A residency training program that prepares physicians in the investigation of and intervention in health and disease problems of communities and defined population groups, and the simulation of behaviors that promote good health. Includes instruction in biostatistics, epidemiology, environmental control, toxicology and the planning and administration of health programs and services. Requires prior or concurrent completion of a program in public health.

51.2955 **Psychiatry Residency.** A residency training program that prepares physicians in the diagnosis, treatment, and prevention of mental, emotional, behavioral and neurological disorders. Includes instruction in psychotherapy, family counseling, referral, clinical diagnosis, and practice management. Requires prior partial completion of a program in neurology and internal medicine, family medicine or pediatrics. (see also 51.2908)

51.2956 **Public Health Medicine Residency.** A residency training program that prepares physicians in the prevention, control and treatment of communicable and chronic diseases in communities and defined population groups, with emphasis on the administrative management of health care, sanitation and applied research services.

51.2957 **Pulmonary Disease Residency.** A residency training program that prepares physicians in pulmonary physiology and the treatment of lung diseases, pulmonary malignancies, related vascular diseases, respiratory disorders, diagnostic and therapeutic procedures, and pulmonary pathology. Requires prior completion of a program in internal medicine.

51.2958 **Radiation Oncology Residency.** A residency training program that prepares physicians in the use of ionizing radiation to treat patients with cancer and other diseases. Includes instruction in treatment planning, instrument design and operation, radiation physics and radiobiology.

51.2959 **Radioisotopic Pathology Residency.** A residency training program that prepares physicians in the use of radionuclides in the study of body fluids, excreta, or tissues quantified outside the body. Includes instruction in laboratory management and safety, quality control, instrumentation, isotope storage and in vitro analyses. Require prior completion of a program in pathology.

51.2960 **Rheumatology Residency.** A residency training program that prepares physicians in the diagnosis and treatment of patients with acute and chronic rheumatic diseases, diffuse connective tissue diseases, systemic and metabolic diseases and infections and complications following surgery. Requires prior completion of a program in internal medicine.

51.2961 **Sports Medicine Residency.** A residency training program that prepares physicians in the pathology and biomechanics of athletic injuries and the effects of injury on the athlete, including both physical and psychological manifestations. Includes instruction in acute and chronic patient supervision, therapy and rehabilitation, and diagnostic procedures. Requires prior completion of a program in orthopedic surgery.

51.2962 **Thoracic Surgery Residency.** A residency training program that prepares physicians in the evaluation and surgical treatment of pulmonary, esophageal, mediastinal, chest wall, diaphragmatic and cardiovascular disorders. Includes instruction in bronchoscopy and esophagoscope. Requires prior completion of a program in general surgery.

51.2963 **Urology Residency.** A residency training program that prepares physicians in the diagnosis and treatment of diseases of the genitourinary tract in men and women, including renal transplantation, renal-vascular disease, oncology, infertility and endocrinology, stone disease and aerodynamics. Requires prior partial completion of a program in general surgery.

51.2964 **Vascular Surgery Residency.** A residency training program that prepares physicians in the surgical treatment of diseases and disorders of the arterial, venous and lymphatic circulatory systems and of the heart and thoracic aorta. Requires prior completion of all or a portion of a program in general surgery.

51.2999 **Medical Residency Programs, Other.** Any residency program in medicine not described above.

51.30 **Veterinary Residency Programs.** A group of instructional programs that prepare veterinarians in advanced clinical work in special areas of veterinary practice. Programs may lead to examination for board certification.

----- **Veterinary Medicine (D.V.M.).** (refer to 51.24 Series)

----- **Veterinary Clinical Sciences (M.S., Ph.D.).** (refer to 51.25 Series)

51.3001 **Veterinary Anesthesiology.** A residency training program that prepares veterinarians in the application of anesthesia for general and specialized surgery and obstetrics, critical animal care and the care of pain problems. Includes instruction in surgical procedures, current monitoring procedures, fluid therapy, pain management, diagnostic and therapeutic procedures outside the operating room, and operating room safety.

51.3002 **Veterinary Dentistry.** A residency training program that prepares veterinarians in the application of dental care procedures to the teeth, eating surfaces, and oral cavities of animals. Includes instruction in the prevention, diagnosis, and treatment of diseases and abnormalities of animal teeth and gums and related parts of the oral cavity; and related anatomical and physiological principles.

51.3003 **Veterinary Dermatology.** A residency training program that prepares veterinarians in the delivery of specialized care to animals with diseases of the skin, scales, feathers, hair, nails and mucous membranes. Includes instruction in dermatologic surgical procedures, cutaneous allergies, and diagnostic and therapeutic techniques.

51.3004 **Veterinary Emergency and Critical Care Medicine.** A residency training program that prepares veterinarians in the emergency treatment and management of care for animals with acutely life-threatening conditions which may include multiple organ failure. Includes instruction in the management of critical care units, emergency procedures, and long-term care of critically diseased animals.

51.3005 **Veterinary Internal Medicine.** A residency training program that prepares veterinarians in the provision of general medical services to animals with a wide range of non-surgical clinical problems. Includes instruction in behavioral aspects of diseases, animal diagnosis, animal aging, and referral procedures.

51.3006 **Laboratory Animal Medicine.** A residency training program that prepares veterinarians in the principles and practices of applied veterinary research and related techniques, equipment, data systems and research design. Includes instruction in the management of veterinary and other animal research laboratories and health care facilities.

51.3007 **Veterinary Microbiology.** A residency training program that prepares veterinarians in clinical applications of research on harmful microorganisms, including viruses, and of the disease processes they induce in animals.

51.3008 **Veterinary Nutrition.** A residency training program that prepares veterinarians to apply research on the chemical nature of food substances; the processes by which animals ingest, digest, absorb, transport, utilize and excrete food and nutrients; and their relation to animal behavior and health.

51.3009 **Veterinary Ophthalmology.** A residency training program that prepares veterinarians in the diagnosis, prevention, and treatment of ophthalmic diseases and disorders in animals, and related ocular pathology procedures. Includes instruction in animal eye surgery.

51.3010 **Veterinary Pathology.** A residency training program that prepares veterinarians in the clinical laboratory analysis and diagnosis of diseased animal tissues and anatomic abnormalities. Includes instruction in performing general autopsies, forensic medicine, laboratory management and quality control.

51.3011 **Veterinary Practice.** A residency training program that prepares veterinarians in the provision of regular and long-term care to animals, health services to owners, and the management of independent veterinary practices. Includes instruction in comprehensive care and specialist referral, basic surgery, emergency medical procedures, and diagnostic imaging.

51.3012 **Veterinary Preventive Medicine.** A residency training program that prepares veterinarians in the investigation of and intervention in health and disease problems of animal and related human communities; comparative medicine; and animal public health. Includes instruction in biostatistics, epidemiology, environmental control, toxicology and the planning and administration of animal health programs and services.

51.3013 **Veterinary Radiology.** A residency training program that prepares veterinarians in the use of radiologic imaging and therapies to diagnose and treat animal diseases and health problems. Includes instruction in the use and handling of equipment for radionuclide detection and application.

51.3014 **Veterinary Surgery.** A residency training program that prepares veterinarians in the care and treatment of animal diseases and disorders via invasive procedures and the etiology, pathogenesis, diagnosis and management of physical disorders. Includes instruction in clinical and operative skills, pre-operative and post-operative care, trauma management, endoscopic techniques, and applications to large and small animal medicine.

51.3015 **Theriogenology.** A residency training program that prepares veterinarians in the diagnosis, prevention and treatment of diseases and health problems affecting the reproductive systems of animals, and the comprehensive care and treatment of parent animals, animal fetuses and newborn or newly hatched animals throughout the gestation period.

51.3016 **Veterinary Toxicology.** A residency training program that prepares veterinarians in the clinical application of research on the nature and extent of adverse effects of synthetic and naturally occurring chemical substances on animals. Includes instruction in chemical mechanisms and the specialties of reproductive, developmental, genetic, forensic, inhalation and neurobehavioral toxicology.

51.3017 **Zoological Medicine.** A residency training program that prepares veterinarians in the specialized treatment and care of zoo animals, performing animals, and animals living in the wild. Includes instruction in the principles and procedures used in the observation, diagnosis, care and treatment of illness, disease, injury, deformity, or other anomalies in non-domesticated animals.

51.3099 **Veterinary Residency Programs, Other.** Any residency training program in veterinary medicine not described above.

CHAPTER VII

HIGH SCHOOL/SECONDARY DIPLOMA AND CERTIFICATE PROGRAMS

The codes listed in Chapter VI describe formal instructional programs of study at the high school level only. Data on completions and awards in the Series 53. codes are annually collected and analyzed by the United States Department of Education.

High school/secondary awards that do not reflect completion of an instructional program, such as certificates of attendance, are not described in the Classification of Instructional Programs.

Regular High School Diplomas, regardless of type, represent the successful completion of 16 or more prescribed Carnegie Units of instruction. (Each Carnegie Unit equals one academic year of instruction in a specific subject matter area, at approximately one instructional hour per school day.)

Depending on state policy, secondary students enrolled in vocational and other programs may receive more than one completion award. In states offering separate vocational diplomas, individuals receiving recognized vocational diplomas will also have completed a regular secondary academic program, and will be simultaneously certified in both. Other states do not offer a separate secondary vocational diploma, but either offer a certificate of completion in specified vocational programs or program areas, or make no distinction at all.

Proficiency in specific academic subject matter areas is also certified in some states by the simultaneous award of a regular secondary diploma and certification of competence in one or more specific programs or program areas. Other states award separate college preparatory diplomas to those students completing specified credits in academic subjects. In addition, a few states award honors or regents diplomas that certify outstanding scholastic performance in either academic or vocational programs.

State policy also determines the treatment of completions and awards in the area of special education. Under the authority of P.L. 94-142, all handicapped students in the United States under age 21 must have an Individualized Education Plan (IEP), which specifies the knowledge and skills that the student is expected to achieve. Some states implement this national requirement by awarding a regular secondary diploma to students who successfully complete their IEP requirements, without regard to the standard Carnegie Unit requirements of such diplomas. Other states award certificates of IEP completion along with attendance certificates, but not diplomas. Still others do not formally recognize IEP completions, and do not separately distinguish special education students receiving any kind of award.

It is also possible to be certified to have met diploma requirements without having attended a traditional or recognized secondary school, or having completed a program, either by examination or by official acceptance of credentials earned outside the United States.

53. **HIGH SCHOOL/SECONDARY DIPLOMAS AND CERTIFICATES.** A summary of groups of instructional programs that describe the requirements for high school/secondary graduation.

53.01 **High School/Secondary Diplomas.** A group of instructional programs that describe prescribed programs of study leading to high school/secondary graduation.

53.0101 **Regular High School Diploma.** An instructional program that describes prescribed minimum requirements specified by a state or other jurisdiction for high school/secondary school graduation.

53.0102 **College Preparatory High School Diploma.** An instructional program that describes prescribed requirements, specified by a state or other jurisdiction, for high school/secondary school graduation in a program of academic subject matter designed to meet typical college entrance requirements.

* 53.0103 **Vocational High School Diploma.** An instructional program that describes prescribed requirements, specified by a state or other jurisdiction, for high school/secondary school graduation in a vocational program -- together with other required subject matter, and that may prepare individuals for specific occupations.

* 53.0104 **Honors/Regents High School Diploma.** An instructional program that describes prescribed requirements, specified by a state or other jurisdiction, for high school/secondary school graduation in an academic or vocational program at a stated level of outstanding scholastic performance, or via meeting special requirements beyond the minimum.

* 53.0199 **High School/Secondary Diplomas, Other.** Any high school/secondary diploma program not described above, such as diplomas awarded to special education students for completion of an individualized education plan (IEP).

53.02 **High School/Secondary Certificates.** A group of instructional programs that describe the requirements for successful completion of specified portions of high school/secondary diploma programs.

53.0201 **High School Equivalence Certificate.** An instructional program that describes the requirements for meeting the minimum high school/secondary graduation requirements specified by a state or other jurisdiction, either by obtaining a prescribed passing score on the national General Educational Development Test (GED), or by satisfactory completion of prescribed coursework, or both.

* 53.0202 **High School Certificate of Competence.** An instructional program that describes the requirements for meeting specified performance standards in academic or vocational program areas, as prescribed by a state or other jurisdiction, corresponding to a portion of a high school/secondary diploma program. Includes such requirements as passing a state-mandated academic achievement test, completing specified requirements for subject-matter competence, or achieving a specified high level of performance, and may be awarded independently or in conjunction with a high school/secondary diploma.

* 53.0203 **Certificate of IEP Completion.** An instructional program that describes the requirements for meeting specified goals pertaining to an Individual Educational Program established by a local school system under the authority of a state or other jurisdiction. Specific content varies by student and may or may not equal a regular high school/secondary school program.

* 53.0299 **High School/Secondary Certificates, Other.** Any certificate program at the high school/secondary instructional level not described above.

APPENDIX A

CROSSWALK CHART FROM 1990
CODE NUMBERS AND TITLES TO 1985
CODE NUMBERS AND TITLES

NOTE: This chart is keyed to 1990 CIP code numbers and titles. 1985 codes are grouped according to the 1990 codes they correspond to. Corresponding codes are located on the same lines, except where a single 1990 code replaces several 1985 codes. In such cases, all 1985 codes are grouped together, and this is indicated in both columns by spacing. Where a 1990 code is new, there is a blank space across from it in the 1985 column.

CHAPTER I

Academic and Occupationally Specific Programs

1990 CLASSIFICATION OF INSTRUCTIONAL PROGRAMS	1985 CLASSIFICATION OF INSTRUCTIONAL PROGRAMS
01. AGRICULTURAL BUSINESS AND PRODUCTION	01. AGRIBUSINESS AND AGRICULTURAL PRODUCTION
01.01 Agricultural Business and Management	01.01 Agricultural Business and Management
01.0101 Agricultural Business and Management, General	01.0101 Agricultural Business and Management, General
01.0102 Agricultural Business/Agribusiness Operations	01.0102 Agricultural Business
01.0103 Agricultural Economics	01.0103 Agricultural Economics
01.0104 Farm and Ranch Management	01.0104 Farm and Ranch Management
01.0199 Agricultural Business and Management, Other	01.0199 Agricultural Business and Management, Other
01.02 Agricultural Mechanization	01.02 Agricultural Mechanics
01.0201 Agricultural Mechanization, General	01.0201 Agricultural Mechanics, General
01.0201 Agricultural Mechanization, General	01.0203 Agricultural Mechanics, Construction and Maintenance Skills
01.0201 Agricultural Mechanization, General	01.0205 Agricultural Structures, Equipment and Facilities
01.0204 Agricultural Power Machinery Operator	01.0204 Agricultural Power Machinery
01.0299 Agricultural Mechanization, Other	01.0202 Agricultural Electrification, Power and Controls
01.0299 Agricultural Mechanization, Other	01.0206 Soil and Water Mechanical Practices
01.0299 Agricultural Mechanization, Other	01.0299 Agricultural Mechanics, Other
01.03 Agricultural Production Workers and Managers	01.03 Agricultural Production
01.0301 Agricultural Production Workers and Managers, General	01.0301 Agricultural Production, General
01.0302 Agricultural Animal Husbandry and Production Management	01.0302 Animal Production
01.0303 Aquaculture Operations and Production Management	01.0303 Aquaculture
01.0304 Crop Production Operations and Management	01.0304 Crop Production
01.0399 Agricultural Production Workers and Managers, Other	01.0305 Game Farm Management
01.0399 Agricultural Production Workers and Managers, Other	01.0399 Agricultural Production, Other

01.04 Agricultural and Food Products Processing	01.04 Agricultural Products and Processing
01.0401 Agricultural and Food Products Processing Operations and Management	01.0401 Agricultural Products and Processing, General
01.0401 Agricultural and Food Products Processing Operations and Management	01.0402 Food Products
01.0401 Agricultural and Food Products Processing Operations and Management	01.0499 Agricultural Products and Processing, Other
01.05 Agricultural Supplies and Related Services	01.05 Agricultural Services and Supplies
01.0501 Agricultural Supplies Retailing and Wholesaling	01.0501 Agricultural Service and Supplies, General
01.0501 Agricultural Supplies Retailing and Wholesaling	01.0502 Agricultural Services
01.0501 Agricultural Supplies Retailing and Wholesaling	01.0503 Agricultural Supplies Marketing
01.0505 Animal Trainer	01.0505 Animal Training
01.0507 Equestrian/Equine Studies, Horse Management and Training	01.0507 Horse Handling and Care
01.0507 Equestrian/Equine Studies, Horse Management and Training	
01.0599 Agricultural Supplies Related Services, Other	01.0506 Horseshoeing
01.0599 Agricultural Supplies Related Services, Other	01.0504 Pet Grooming
01.0599 Agricultural Supplies Related Services, Other	01.0599 Agricultural Service and Supplies, Other
01.06 Horticulture Services Operations and Management	01.06 Horticulture
01.0601 Horticulture Services Operations and Management, General	01.0601 Horticulture, General
01.0603 Ornamental Horticulture Operations and Management	01.0603 Ornamental Horticulture
01.0604 Greenhouse Operations and Management	01.0604 Greenhouse Operation and Management
01.0605 Landscaping Operations and Management	01.0605 Landscaping
01.0606 Nursery Operations and Management	01.0606 Nursery Operation and Management
01.0607 Turf Management	01.0607 Turf Management
01.0699 Horticulture Services Operations and Management, Other	01.0602 Arboriculture
01.0699 Horticulture Services Operations and Management, Other	01.0699 Horticulture, Other
01.07 International Agriculture	01.07 International Agriculture
01.0701 International Agriculture	01.0701 International Agriculture
01.99 Agricultural Business and Production, Other	01.99 Agribusiness and Agricultural Production, Other
01.9999 Agricultural Business and Production, Other	01.9999 Agribusiness and Agricultural Production, Other
02. AGRICULTURAL SCIENCES	02. AGRICULTURAL SCIENCES
02.01 Agriculture/Agricultural Sciences	02.01 Agricultural Sciences, General
02.0101 Agriculture/Agricultural Sciences, General	02.0101 Agricultural Sciences, General
02.0102 Agricultural Extension	
02.02 Animal Sciences	02.02 Animal Sciences
02.0201 Animal Sciences, General	02.0201 Animal Sciences, General
02.0201 Animal Sciences, General	02.0208 Livestock
02.0202 Agricultural Animal Breeding and Genetics	02.0202 Animal Breeding and Genetics

02.0203 Agricultural Animal Health	02.0203 Animal Health
02.0204 Agricultural Animal Nutrition	02.0204 Animal Nutrition
02.0205 Agricultural Animal Physiology	
02.0206 Dairy Science	02.0206 Dairy
02.0209 Poultry Science	02.0209 Poultry
02.0299 Animal Sciences, Other	02.0299 Animal Sciences, Other
02.03 Food Sciences and Technology	02.03 Food Sciences
02.0301 Food Sciences and Technology	02.0301 Food Sciences
02.04 Plant Sciences	02.04 Plant Sciences
02.0401 Plant Sciences, General	02.0401 Plant Sciences, General
02.0402 Agronomy and Crop Science	02.0402 Agronomy
02.0403 Horticulture Science	02.0403 Horticulture Science
02.0405 Plant Breeding and Genetics	
02.0406 Agricultural Plant Pathology	
02.0407 Agricultural Plant Physiology	
02.0408 Plant Protection (Pest Management)	02.0408 Plant Protection (Pest Management)
02.0409 Range Science and Management	02.0409 Range Management
02.0499 Plant Sciences, Other	02.0499 Plant Sciences, Other
02.05 Soil Sciences	02.05 Soil Sciences
02.0501 Soil Sciences	02.0501 Soil Sciences
02.99 Agriculture/Agricultural Sciences, Other	02.99 Agricultural Sciences, Other
02.9999 Agriculture/Agricultural Sciences, Other	02.9999 Agricultural Sciences, Other
03. CONSERVATION and RENEWABLE NATURAL RESOURCES	03. RENEWABLE NATURAL RESOURCES
03.01 Natural Resources Conservation	03.01 Renewable Natural Resources, General
03.0101 Natural Resources Conservation, General	03.0101 Renewable Natural Resources, General
03.0101 Natural Resources Conservation, General	03.0202 Conservation
03.0102 Environmental Science/Studies	
03.02 Natural Resources Management and Protective Services	03.02 Conservation and Regulation
03.0201 Natural Resources Management and Policy	03.0201 Conservation and Regulation, General
03.0203 Natural Resources Law Enforcement and Protective Services	03.0203 Resources Protection and Regulation Enforcement
03.0299 Natural Resources Management and Protective Services, Other	03.0299 Conservation and Regulation, Other
03.03 Fishing and Fisheries Sciences and Management	03.03 Fishing and Fisheries
03.0301 Fishing and Fisheries Sciences and Management	03.0301 Fishing and Fisheries

03.04 Forest Production and Processing	03.04 Forestry Production and Processing
03.0401 Forest Harvesting and Production Technology/Technician	03.0401 Forestry Production and Processing, General
03.0401 Forest Harvesting and Production Technology/Technician	03.0402 Forest Production
03.0404 Forest Products Technology/Technician	03.0404 Forest Products Processing Technology
03.0405 Logging/Timber Harvesting	03.0405 Logging
03.0499 Forest Production and Processing, Other	03.0403 Forest Products Utilization
03.0499 Forest Production and Processing, Other	03.0499 Forestry Production and Processing, Other
03.05 Forestry and Related Sciences	03.05 Forestry and Related Sciences
03.0501 Forestry, General	03.0501 Forestry and Related Sciences, General
03.0502 Forestry Sciences	03.0502 Forestry Science
03.0506 Forest Management	03.0506 Forest Management
03.0509 Wood Science and Pulp/Paper Technology	03.0509 Wood Science
03.0599 Forestry and Related Sciences, Other	03.0504 Forest Engineering
03.0599 Forestry and Related Sciences, Other	03.0599 Forestry and Related Sciences, Other
03.06 Wildlife and Wildlands Management	03.06 Wildlife Management
03.0601 Wildlife and Wildlands Management	03.0601 Wildlife Management
03.99 Conservation and Renewable Natural Resources, Other	03.99 Renewable Natural Resources, Other
03.9999 Conservation and Renewable Natural Resources, Other	03.9999 Renewable Natural Resources, Other
04. ARCHITECTURE AND RELATED PROGRAMS	04. ARCHITECTURE AND ENVIRONMENTAL DESIGN
04.02 Architecture	04.01 Architecture and Environmental Design, General
04.0201 Architecture	04.0101 Architecture and Environmental Design, General
04.02 Architecture	04.02 Architecture
04.0201 Architecture	04.0201 Architecture
04.03 City/Urban, Community and Regional Planning	04.03 City, Community and Regional Planning
04.0301 City/Urban, Community and Regional Planning	04.0301 City, Community, and Regional Planning
04.04 Architectural Environmental Design	04.04 Environmental Design
04.0401 Architectural Environmental Design	04.0401 Environmental Design
04.05 Interior Architecture	04.05 Interior Design
04.0501 Interior Architecture	04.0501 Interior Design

04.06 Landscape Architecture	04.06 Landscape Architecture
04.0601 Landscape Architecture	04.0601 Landscape Architecture
04.07 Architectural Urban Design and Planning	04.07 Urban Design
04.0701 Architectural Urban Design and Planning	04.0701 Urban Design
04.99 Architecture and Related Programs, Other	04.08 Land Use Management and Reclamation
04.9999 Architecture and Related Programs, Other	04.0801 Land Use Management and Reclamation
04.99 Architecture and Related Programs, Other	04.99 Architecture and Environment Design, Other
04.9999 Architecture and Related Programs, Other	04.9999 Architecture and Environmental Design, Other
05. AREA, ETHNIC AND CULTURAL STUDIES	05. AREA AND ETHNIC STUDIES
05.01 Area Studies	05.01 Area Studies
05.0101 African Studies	05.0101 African Studies
05.0102 American Studies/Civilization	05.0102 American Studies
05.0103 Asian Studies	05.0103 Asian Studies, General
05.0104 East Asian Studies	05.0104 East Asian Studies
05.0105 Eastern European Area Studies	05.0105 Eastern European Studies
05.0106 European Studies	05.0106 European Studies, General
05.0107 Latin American Studies	05.0107 Latin American Studies
05.0108 Middle Eastern Studies	05.0108 Middle Eastern Studies
05.0109 Pacific Area Studies	05.0109 Pacific Area Studies
05.0110 Russian and Slavic Area Studies	05.0110 Russian and Slavic Studies
05.0111 Scandinavian Area Studies	05.0111 Scandinavian Studies
05.0112 South Asian Studies	05.0112 South Asian Studies
05.0113 Southeast Asian Studies	05.0113 Southeast Asian Studies
05.0114 Western European Studies	05.0114 Western European Studies
05.0115 Canadian Studies	05.0115 Canadian Studies
05.0199 Area Studies, Other	05.0199 Area Studies, Other
05.02 Ethnic and Cultural Studies	05.02 Ethnic Studies
05.0201 Afro-American (Black) Studies	05.0201 Afro-American (Black) Studies
05.0202 American Indian/Native American Studies	05.0202 American Indian Studies
05.0203 Hispanic American Studies	05.0203 Hispanic-American Studies
05.0204 Islamic Studies	05.0204 Islamic Studies
05.0205 Jewish/Judaic Studies	05.0205 Jewish Studies
05.0206 Asian-American Studies	
05.0207 Women's Studies	30.0701 Women's Studies
05.0299 Ethnic and Cultural Studies, Other	05.0299 Ethnic Studies, Other
05.99 Area, Ethnic and Cultural Studies, Other	05.99 Area and Ethnic Studies, Other
05.9999 Area, Ethnic and Cultural Studies, Other	05.9999 Area and Ethnic Studies, Other

08. MARKETING OPERATIONS/MARKETING AND DISTRIBUTION	**08. MARKETING AND DISTRIBUTION**
08.01 Apparel and Accessories Marketing Operations	08.01 Apparel and Accessories Marketing
08.0101 Apparel and Accessories Marketing Operations, General	08.0101 Apparel and Accessories Marketing, General
08.0102 Fashion Merchandising	08.0102 Fashion Merchandising
08.0103 Fashion Modeling	08.0103 Fashion Modeling
08.0199 Apparel and Accessories Marketing Operations, Other	08.0104 Footwear Marketing
08.0199 Apparel and Accessories Marketing Operations, Other	08.0105 Jewelry Marketing
08.0199 Apparel and Accessories Marketing Operations, Other	08.0199 Apparel and Accessories Marketing, Other
08.02 Business and Personal Services Marketing Operations	08.02 Business and Personal Services Marketing
08.0204 Business Services Marketing Operations	
08.0205 Personal Services Marketing Operations	
08.0299 Business and Personal Services Marketing Operations, General	08.0201 Business and Personal Services Marketing, Other
08.0299 Business and Personal Services Marketing Operations, Other	08.0202 Display
08.0299 Business and Personal Services Marketing Operations, Other	08.0203 Marketing of Business or Personal Services
08.0299 Business and Personal Services Marketing Operations, Other	08.0299 Business and Personal Services Marketing, Other
08.03 Entrepreneurship	08.03 Entrepreneurship
08.0301 Entrepreneurship	08.0301 Entrepreneurship
08.04 Financial Services Marketing Operations	08.04 Financial Services Marketing
08.0401 Financial Services Marketing Operations	08.0401 Financial Services Marketing
08.05 Floristry Marketing Operations	08.05 Floristry, Farm and Garden Supplies Marketing
08.0503 Floristry Marketing Operations	08.0503 Floristry
08.06 Food Products Retailing and Wholesaling Operations	08.06 Food Marketing
08.0601 Food Products Retailing and Wholesaling Operations	08.0601 Food Marketing, General
08.0601 Food Products Retailing and Wholesaling Operations	08.0602 Convenience Store Marketing
08.0601 Food Products Retailing and Wholesaling Operations	08.0603 Specialty Foods Marketing
08.0601 Food Products Retailing and Wholesaling Operations	08.0604 Supermarket Marketing
08.0601 Food Products Retailing and Wholesaling Operations	08.0605 Wholesale Food Marketing
08.0601 Food Products Retailing and Wholesaling Operations	08.0699 Food Marketing, Other
08.07 General/Retailing and Wholesaling Operations and Skills	08.07 General Marketing
08.0701 Auctioneering	08.0701 Auctioneering
08.0704 General Buying Operations	08.0704 Purchasing
08.0705 General Retailing Operations	08.0705 Retailing
08.0706 General Selling Skills and Sales Operations	08.0706 Sales
08.0708 General Marketing Operations	08.0708 Marketing, General
08.0709 General Distribution Operations	08.1102 Transportation Marketing

08.0799 General Retailing and Wholesaling Operations and Skills, Other	08.0707 Wholesaling
08.0799 General Retailing and Wholesaling Operations and Skills, Other	08.0702 Industrial Sales
08.0799 General Retailing and Wholesaling Operations and Skills, Other	08.0799 General Marketing, Other
08.08 Home and Office Products Marketing Operations	08.08 Home and Office Products Marketing
08.0809 Home Products Marketing Operations	08.0808 Specialty Home Furnishings Marketing
08.0809 Home Products Marketing Operations	08.0802 Appliance Marketing
08.0809 Home Products Marketing Operations	08.0805 Furniture Marketing
08.0810 Office Products Marketing Operations	08.0807 Office Products and Equipment Marketing
08.0899 Home and Office Products Marketing Operations, Other	08.0801 Home and Office Products Marketing, General
08.0899 Home and Office Products Marketing Operations, Other	08.0803 Building Materials Marketing
08.0899 Home and Office Products Marketing Operations, Other	08.0806 Hardware Marketing
08.0899 Home and Office Products Marketing Operations, Other	08.0899 Home and Office Products Marketing, Other
08.09 Hospitality and Recreation Marketing Operations	08.09 Hospitality and Recreation Marketing
08.0901 Hospitality Marketing Operations, General	08.0901 Hospitality and Recreation Marketing, General
08.0902 Hotel/Motel Services Marketing Operations	08.0902 Marketing of Hotel/Motel Services
08.0903 Recreation Products/Services Marketing Operations	08.0903 Marketing of Recreational Services
08.0903 Recreation Products/Services Marketing Operations	08.0904 Recreational Products Marketing
08.0906 Food Sales Operations	
08.0999 Hospitality and Recreation Marketing Operations, Other	08.0999 Hospitality and Recreation Marketing, Other
08.10 Insurance Marketing Operations	08.10 Insurance Marketing
08.1001 Insurance Marketing Operations	08.1001 Insurance Marketing
08.11 Tourism and Travel Services Marketing Operations	08.11 Transportation and Travel Marketing
08.1104 Tourism Promotion Operations	08.1104 Tourism
08.1105 Travel Services Marketing Operations	08.1105 Travel Services Marketing
08.1199 Tourism and Travel Services Marketing Operations, Other	08.1101 Transportation and Travel Marketing, General
08.1199 Tourism and Travel Services Marketing Operations, Other	08.1106 Warehouse Services Marketing
08.1199 Tourism and Travel Services Marketing Operations, Other	08.1199 Transportation and Travel Marketing, Other
08.12 Vehicles and Petroleum Products Marketing Operations	08.12 Vehicles and Petroleum Marketing
08.1203 Vehicle Parts and Accessories Marketing Operations	08.1203 Automotive Vehicles and Accessories Marketing
08.1208 Vehicle Marketing Operations	08.1205 Recreational Vehicles and Accessories Marketing
08 1209 Petroleum Products Retailing Operations	08.1204 Petroleum Wholesaling
08.1209 Petroleum Products Retailing Operations	08.1206 Service Station Retailing
08.1299 Vehicles and Petroleum Products Marketing Operations, Other	08.1201 Vehicles and Petroleum Marketing, General
08.1299 Vehicles and Petroleum Products Marketing Operations, Other	08.1207 Vehicle Rental and Leasing
08.1299 Vehicles and Petroleum Products Marketing Operations, Other	08.1299 Vehicles and Petroleum Marketing, Other

08.14 Health Products and Services Marketing Operations	
08.1401 Health Products and Services Marketing Operations	
08.99 Marketing Operations/Marketing and Distribution, Other	08.99 Marketing and Distribution, Other
08.9999 Marketing Operations/Marketing and Distribution, Other	08.0501 Floristry, Farm and Garden Supplies Marketing, General
08.9999 Marketing Operations/Marketing and Distribution, Other	08.0502 Farm and Garden Supplies Marketing
08.9999 Marketing Operations/Marketing and Distribution, Other	08.0599 Floristry, Farm and Garden Supplies Marketing, Other
08.9999 Marketing Operations/Marketing and Distribution, Other	08.9999 Marketing and Distribution, Other
09. COMMUNICATIONS	09. COMMUNICATIONS
09.01 Communications, General	09.01 Communications, General
09.0101 Communications, General	09.0101 Communications, General
09.01 Communications, General	09.03 Communications Research
09.0101 Communications, General	09.0301 Communications Research
09.02 Advertising	09.02 Advertising
09.0201 Advertising	09.0201 Advertising
09.04 Journalism and Mass Communications	09.04 Journalism (Mass Communications)
09.04 Journalism and Mass Communications	09.06 Radio/Television News Broadcasting
09.0401 Journalism	09.0401 Journalism (Mass Communications)
09.0402 Broadcast Journalism	09.0601 Radio/Television News Broadcasting
09.0403 Mass Communications	
09.0499 Journalism and Mass Communication, Other	
09.05 Public Relations and Organizational Communications	09.05 Public Relations
09.0501 Public Relations and Organizational Communications	09.0501 Public Relations
09.07 Radio and Television Broadcasting	09.07 Radio/Television, General
09.0701 Radio and Television Broadcasting	09.0701 Radio/Television, General
09.99 Communications, Other	09.08 Telecommunications
09.9999 Communications, Other	09.0801 Telecommunications
09.99 Communications, Other	09.99 Communications, Other
09.9999 Communications, Other	09.9999 Communications, Other

10. COMMUNICATIONS TECHNOLOGIES	10. COMMUNICATIONS TECHNOLOGIES
10.01 Communications Technologies	10.01 Communications Technologies
10.0101 Educational/Instructional Media Technology/Technician	10.0101 Educational Media Technology
10.0103 Photographic Technology/Technician	10.0103 Photographic Technology
10.0103 Photographic Technology/Technician	48.0207 Photographic Laboratory and Darkroom
10.0104 Radio and Television Broadcasting Technology/Technician	10.0104 Radio and Television Production and Broadcasting Technology
10.0199 Communications Technologies/Technicians, Other	10.0105 Sound Recording Technology
10.0199 Communications Technologies/Technicians, Other	10.0106 Video Technology
10.0199 Communications Technologies/Technicians, Other	10.0199 Communications Technologies, Other
11. COMPUTER AND INFORMATION SCIENCES	11. COMPUTER AND INFORMATION SCIENCES
11.01 Computer and Information Sciences, General	11.01 Computer and Information Sciences, General
11.0101 Computer and Information Sciences, General	11.0101 Computer and Information Sciences, General
11.02 Computer Programming	11.02 Computer Programming
11.0201 Computer Programming	11.0201 Computer Programming
11.03 Data Processing Technology/Technician	11.03 Data Processing
11.0301 Data Processing Technology/Technician	11.0301 Data Processing
11.04 Information Sciences and Systems	11.04 Information Sciences and Systems
11.0401 Information Sciences and Systems	11.0401 Information Sciences and Systems
11.05 Computer Systems Analysis	11.05 Systems Analysis
11.0501 Computer Systems Analysis	11.0501 Systems Analysis
11.07 Computer Science	
11.0701 Computer Science	
11.99 Computer and Information Sciences, Other	11.99 Computer and Information Sciences, Other
11.99 Computer and Information Sciences, Other	11.06 Microcomputer Applications
11.9999 Computer and Information Sciences, Other	11.0601 Microcomputer Applications
11.9999 Computer and Information Sciences, Other	11.9999 Computer and Information Sciences, Other

12. PERSONAL AND MISCELLANEOUS SERVICES	12. CONSUMER, PERSONAL AND MISCELLANEOUS SERVICES
12.02 Gaming and Sports Officiating	12.02 Entertainment Services
12.0203 Card Dealer	12.0203 Card Dealing
12.0204 Umpires and Other Sports Officials	12.0204 Umpiring
12.0299 Gaming and Sports Officiating Services, Other	12.0299 Entertainment Services, Other
12.03 Funeral Services and Mortuary Science	12.03 Funeral Services
12.0301 Funeral Services and Mortuary Science	12.0301 Funeral Services
12.04 Cosmetic Services	12.04 Personal Services
12.0401 Cosmetic Services, General	12.0401 Personal Services, General
12.0402 Barber/Hairstylist	12.0402 Barbering/Hairstyling
12.0403 Cosmetologist	12.0403 Cosmetology
12.0404 Electrolysis Technician	12.0404 Electrolysis
12.0405 Massage	12.0405 Massage
12.0406 Make-up Artist	12.0406 Make-up Artistry
12.0499 Cosmetic Services, Other	12.0499 Personal Services, Other
12.05 Culinary Arts and Related Services	
12.0501 Baker/Pastry Chef	20.0402 Baking
12.0502 Bartender/Mixologist	12.0202 Bartending
12.0503 Culinary Arts/Chef Training	20.0403 Chef/Cook
12.0504 Food and Beverage/Restaurant Operations Manager	06.0704 Restaurant Management
12.0505 Kitchen Personnel/Cook and Assistant Training	20.0403 Chef/Cook
12.0506 Meatcutter	48.0402 Meatcutting
12.0506 Meatcutter	48.0403 Slaughtering and Butchering
12.0507 Waiter/Waitress and Dining Room Manger	08.0905 Waiter/Waitress and Related Services
12.0599 Culinary Arts and Related Services, Other	48..401 Precision Food Production, General
12.0599 Culinary Arts and Related Services, Other	48.0499 Precision Food Production, Other
12.99 Personal and Miscellaneous Services, Other	12.99 Consumer, Personal and Miscellaneous Services, Other
12.9999 Personal and Miscellaneous Services, Other	12.9999 Consumer, Personal and Miscellaneous Services, Other
13. EDUCATION	13. EDUCATION
13.01 Education, General	13.01 Education, General
13.0101 Education, General	13.0101 Education, General
13.02 Bilingual/Bicultural Education	13.02 Bilingual/Crosscultural Education
13.0201 Bilingual/Bicultural Education	13.0201 Bilingual/Crosscultural Education
13.0201 Bilingual/Bicultural Education	13.0202 Bilingual Education Assisting

13.0201 Bilingual/Bicultural Education	13.0299 Bilingual/Crosscultural Education, Other
13.03 Curriculum and Instruction	13.03 Curriculum and Instruction
13.0301 Curriculum and Instruction	13.0301 Curriculum and Instruction
13.04 Education Administration and Supervision	13.04 Education Administration
13.0401 Education Administration and Supervision, General	13.0401 Education Administration, General
13.0402 Administration of Special Education	13.0402 Administration of Special Education
13.0403 Adult and Continuing Education Administration	13.0403 Adult and Continuing Education Administration
13.0404 Educational Supervision	13.0404 Educational Supervision
13.0405 Elementary, Middle and Secondary Education Administration	13.0405 Elementary and Secondary Education Administration
13.0406 Higher Education Administration	13.0406 Higher Education Administration
13.0407 Community and Junior College Administration	13.0407 Community College Education Administration
13.0499 Education Administration and Supervision, Other	13.0499 Education Administration, Other
13.05 Educational/Instructional Media Design	13.05 Educational Media
13.0501 Educational/Instructional Media Design	13.0501 Educational Media
13.06 Educational, Evaluation, Research and Statistics	13.06 Evaluation and Research
13.0601 Educational Evaluation and Research	13.0601 Evaluation and Research, General
13.0601 Educational Evaluation and Research	13.0605 Elementary and Secondary Research
13.0601 Educational Evaluation and Research	13.0606 Higher Education Research
13.0603 Educational Statistics and Research Methods	13.0603 Educational Statistics and Research
13.0604 Educational Assessment, Testing and Measurement	13.0604 Educational Testing, Evaluation and Measurement
13.0699 Educational Evaluation, Research and Statistics, Other	13.0699 Evaluation and Research, Other
13.07 International and Comparative Education	13.07 International and Comparative Education
13.0701 International and Comparative Education	13.0701 International and Comparative Education
13.08 Educational Psychology	13.08 School Psychology
13.0802 Educational Psychology	13.0801 School Psychology
13.09 Social and Philosophical Foundations of Education	13.09 Social Foundations
13.0901 Social and Philosophical Foundations of Education	13.0901 Social Foundations
13.10 Special Education	13.10 Special Education
13.1001 Special Education, General	13.1001 Special Education, General
13.1003 Education of the Deaf and Hearing Impaired	13.1003 Education of the Deaf and Hearing Impaired
13.1004 Education of the Gifted and Talented	13.1004 Education of the Gifted and Talented
13.1005 Education of the Emotionally Handicapped	13.1005 Education of the Emotionally Handicapped
13.1006 Education of the Mentally Handicapped	13.1006 Education of the Mentally Handicapped
13.1007 Education of the Multiple Handicapped	13.1007 Education of the Multiple Handicapped
13.1008 Education of the Physically Handicapped	13.1008 Education of the Physically Handicapped
13.1009 Education of the Blind and Visually Handicapped	13.1009 Education of the Visually Handicapped

13.1011 Education of the Specific Learning Disabled	13.1011 Specific Learning Disabilities
13.1012 Education of the Speech Impaired	13.1012 Speech Correction
13.1013 Education of the Autistic	
13.1099 Special Education, Other	13.1002 Education of the Culturally Disadvantaged
13.1099 Special Education, Other	13.1010 Remedial Education
13.1099 Special Education, Other	13.1099 Special Education, Other
13.11 Student Counseling and Personnel Services	13.11 Student Counseling and Personnel Services
13.1101 Counselor Education/Counseling and Guidance Services	13.1101 Student Counseling and Personnel Services
13.1102 College/Postsecondary Student Counseling and Personnel Services	
13.12 General Teacher Education	13.12 Teacher Education, General Programs
13.1201 Adult and Continuing Teacher Education	13.1201 Adult and Continuing Education
13.1202 Elementary Teacher Education	13.1202 Elementary Education
13.1203 Junior High/Intermediate/Middle School Teacher Education	13.1203 Junior High/Middle School Education
13.1204 Pre-Elementary Education/Early Childhood/Kindergarten Teacher Education	13.1204 Pre-Elementary Education
13.1205 Secondary Teacher Education	13.1205 Secondary Education
13.1206 Teacher Education, Multiple Levels	
13.1299 General Teacher Education, Other	13.1299 Teacher Education, General Programs, Other
13.13 Teacher Education, Specific Academic and Vocational Programs	13.13 Teacher Education, Specific Subject Areas
13.1301 Agricultural Teacher Education (Vocational)	13.1301 Agricultural Education
13.1302 Art Teacher Education	13.1302 Art Education
13.1303 Business Teacher Education (Vocational)	13.1303 Business Education
13.1304 Driver and Safety Teacher Education	13.1304 Driver and Safety Education
13.1305 English Teacher Education	13.1305 English Education
13.1306 Foreign Languages Teacher Education	13.1306 Foreign Languages Education
13.1307 Health Teacher Education	13.1307 Health Education
13.1308 Home Economics Teacher Education (Vocational)	13.1308 Home Economics Education
13.1309 Technology Teacher Education/Industrial Arts Teacher Education	13.1309 Industrial Arts Education
13.1310 Marketing Operations Teacher Education/Marketing and Distribution Teacher Education (Vocational)	13.1310 Marketing and Distributive Education
13.1311 Mathematics Teacher Education	13.1311 Mathematics Education
13.1312 Music Teacher Education	13.1312 Music Education
13.1314 Physical Education Teaching and Coaching	13.1314 Physical Education
13.1315 Reading Teacher Education	13.1315 Reading Education
13.1316 Science Teacher Education, General	13.1316 Science Education
13.1317 Social Science Teacher Education	13.1317 Social Science Education
13.1318 Social Studies Teacher Education	13.1318 Social Studies Education
13.1319 Technical Teacher Education (Vocational)	13.1319 Technical Education
13.1320 Trade and Industrial Teacher Education (Vocational)	13.1320 Trade and Industrial Education
13.1321 Computer Teacher Education	13.1321 Computer Education
13.1322 Biology Teacher Education	
13.1323 Chemistry Teacher Education	
13.1324 Drama and Dance Teacher Education	
13.1325 French Language Teacher Education	
13.1326 German Language Teacher Education	
13.1327 Health Occupations Teacher Education (Vocational)	
13.1328 History Teacher Education	
13.1329 Physics Teacher Education	
13.1330 Spanish Language Teacher Education	
13.1331 Speech Teacher Education	

13.1399 Teacher Education, Specific Academic and Vocational Programs, Other	13.1313 Nutritional Education
13.1399 Teacher Education, Specific Academic and Vocational Programs, Other	13.1399 Teacher Education, Specific Subject Areas, Other
13.14 Teaching English as a Second Language/Foreign Language	13.14 Teaching English as a Second Language/Foreign Language
13.1401 Teaching English as a Second Language/ Foreign Language	13.1401 Teaching English as a Second Language/Foreign Language
13.15 Teacher Assistant/Aide	13.15 Teacher Assisting
13.1501 Teacher Assistant/Aide	13.1501 Teacher Assisting
13.99 Education, Other	13.99 Education, Other
13.9999 Education, Other	13.9999 Education, Other
14. ENGINEERING	14. ENGINEERING
14.01 Engineering, General	14.01 Engineering, General
14.0101 Engineering, General	14.0101 Engineering, General
14.02 Aerospace, Aeronautical and Astronautical Engineering	14.02 Aerospace, Aeronautical and Astronautical Engineering
14.0201 Aerospace, Aeronautical and Astronautical Engineering	14.0201 Aerospace, Aeronautical, and Astronautical Engineering
14.03 Agricultural Engineering	14.03 Agricultural Engineering
14.0301 Agricultural Engineering	14.0301 Agricultural Engineering
14.04 Architectural Engineering	14.04 Architectural Engineering
14.0401 Architectural Engineering	14.0401 Architectural Engineering
14.05 Bioengineering and Biomedical Engineering	14.05 Bioengineering and Biomedical Engineering
14.0501 Bioengineering and Biomedical Engineering	14.0501 Bioengineering and Biomedical Engineering
14.06 Ceramic Sciences and Engineering	14.06 Ceramic Engineering
14.0601 Ceramic Sciences and Engineering	14.0601 Ceramic Engineering
14.07 Chemical Engineering	14.07 Chemical Engineering

14.0701 Chemical Engineering	14.0701 Chemical Engineering
14.08 Civil Engineering	14.08 Civil Engineering
14.0801 Civil Engineering, General 14.0802 Geotechnical Engineering 14.0803 Structural Engineering 14.0804 Transportation and Highway Engineering 14.0805 Water Resources Engineering 14.0899 Civil Engineering, Other	14.0801 Civil Engineering
14.09 Computer Engineering	14.09 Computer Engineering
14.0901 Computer Engineering	14.0901 Computer Engineering
14.10 Electrical, Electronics and Communications Engineering	14.10 Electrical, Electronics, and Communications Engineering
14.1001 Electrical, Electronics and Communication Engineering	14.1001 Electrical, Electronics, and Communications Engineering
14.1001 Electrical, Electronics and Communication Engineering	14.1002 Microelectronic Engineering
14.11 Engineering Mechanics	14.11 Engineering Mechanics
14.1101 Engineering Mechanics	14.1101 Engineering Mechanics
14.12 Engineering Physics	14.12 Engineering Physics
14.1201 Engineering Physics	14.1201 Engineering Physics
14.13 Engineering Science	14.13 Engineering Science
14.1301 Engineering Science	14.1301 Engineering Science
14.14 Environmental/Environmental Health Engineering	14.14 Environmental Health Engineering
14.1401 Environmental/Environmental Health Engineering	14.1401 Environmental Health Engineering
14.15 Geological Engineering	14.15 Geological Engineering
14.1501 Geological Engineering	14.1501 Geological Engineering
14.16 Geophysical Engineering	14.16 Geophysical Engineering
14.1601 Geophysical Engineering	14.1601 Geophysical Engineering
14.17 Industrial/Manufacturing Engineering	14.17 Industrial Engineering
14.1701 Industrial/Manufacturing Engineering	14.1701 Industrial Engineering

14.18 Materials Engineering	14.18 Materials Engineering
14.1801 Materials Engineering	14.1801 Materials Engineering
14.19 Mechanical Engineering	14.19 Mechanical Engineering
14.1901 Mechanical Engineering	14.1901 Mechanical Engineering
14.20 Metallurgical Engineering	14.20 Metallurgical Engineering
14.2001 Metallurgical Engineering	14.2001 Metallurgical Engineering
14.21 Mining and Mineral Engineering	14.21 Mining and Mineral Engineering
14.2101 Mining and Mineral Engineering	14.2101 Mining and Mineral Engineering
14.22 Naval Architecture and Marine Engineering	14.22 Naval Architecture and Marine Engineering
14.2201 Naval Architecture and Marine Engineering	14.2201 Naval Architecture and Marine Engineering
14.23 Nuclear Engineering	14.23 Nuclear Engineering
14.2301 Nuclear Engineering	14.2301 Nuclear Engineering
14.24 Ocean Engineering	14.24 Ocean Engineering
14.2401 Ocean Engineering	14.2401 Ocean Engineering
14.25 Petroleum Engineering	14.25 Petroleum Engineering
14.2501 Petroleum Engineering	14.2501 Petroleum Engineering
14.27 Systems Engineering	14.27 Systems Engineering
14.2701 Systems Engineering	14.2701 Systems Engineering
14.28 Textile Sciences and Engineering	14.28 Textile Engineering
14.2801 Textile Sciences and Engineering	14.2801 Textile Engineering
14.29 Engineering Design	
14.2901 Engineering Design	
14.30 Engineering/Industrial Management	
14.3001 Engineering/Industrial Management	

14.31 Materials Science	
14.3101 Materials Science	
14.32 Polymer/Plastics Engineering	
14.3201 Polymer/Plastics Engineering	
14.99 Engineering, Other	14.99 Engineering, Other
14.9999 Engineering, Other	14.9999 Engineering, Other
15. ENGINEERING-RELATED TECHNOLOGIES	15. ENGINEERING AND ENGINEERING RELATED TECHNOLOGIES
15.01 Architectural Engineering Technology	15.01 Architectural Technologies
15.0101 Architectural Engineering Technology/Technician	15.0101 Architectural Design and Construction Technologies
15.0101 Architectural Engineering Technology/Technician	15.0102 Architectural Interior Design Technology
15.0101 Architectural Engineering Technology/Technician	15.0199 Architectural Technologies, Other
15.02 Civil Engineering/Civil Technology	15.02 Civil Technologies
15.0201 Civil Engineering/Civil Technology/Technician	15.0201 Civil Technology
15.0201 Civil Engineering-Related Technologies, Other	15.0204 Urban Planning Technology
15.0201 Civil Engineering-Related Technologies, Other	15.0299 Civil Technologies, Other
15.03 Electrical and Electronic Engineering-Related Technology	15.03 Electrical and Electronic Technologies
15.0301 Computer Engineering Technology/Technician	15.0301 Computer Technology
15.0303 Electrical Electronic and Communications Engineering Technology/Technician	15.0302 Electrical Technology
15.0303 Electrical Electronic and Communications Engineering Technology/Technician	15.0303 Electronic Technology
15.0304 Laser and Optical Technology/Technician	15.0304 Laser Electro-Optic Technology
15.0399 Electrical and Electronic Engineering-Related Technologies/Technicians, Other	15.0399 Electrical and Electronic Technologies, Other
15.04 Electromechanical Instrumentation and Maintenance Technologies	15.04 Electromechanical Instrumentation and Maintenance Technologies
15.0401 Biomedical Engineering-Related Technology/Technician	15.0401 Biomedical Equipment Technology
15.0402 Computer Maintenance Technology/Technician	15.0402 Computer Servicing Technology
15.0403 Electromechanical Technology/Technician	15.0403 Electromechanical Technology
15.0404 Instrumentation Technology/Technician	15.0404 Instrumentation Technology
15.0405 Robotics Technology/Technician	15.0405 Robotics Technology
15.0499 Electromechanical Instrumentation and Maintenance Technologies/Technicians, Other	15.0499 Electromechanical Instrumentation and Maintenance Technologies, Other
15.05 Environmental Control Technologies	15.05 Environmental Control Technologies

15.0501 Heating, Air Conditioning and Refrigeration Technology/Technician	15.0501 Air Conditioning, Heating, and Refrigeration Technology
15.0503 Energy/Management and Systems Technology/Technician	15.0503 Energy Conservation and Use Technology
15.0505 Solar Heating and Cooling Technology	15.0505 Solar Heating and Cooling Technology
15.0506 Water Quality and Wastewater Treatment Technology/Technician	15.0504 Sanitation Technology
15.0506 Water Quality and Wastewater Treatment Technology/Technician	15.0506 Water and Wastewater Technology
15.0507 Environmental and Pollution Control Technology/Technician	
15.0599 Environmental Control Technologies/Technicians, Other	15.0502 Air Pollution Control Technology
15.0599 Environmental Control Technologies/Technicians, Other	15.0599 Environmental Control Technologies, Other
15.06 Industrial Production Technologies	15.06 Industrial Production Technologies
15.0603 Industrial Manufacturing Technology/Technician	15.0603 Industrial Technology
15.0607 Plastics Technology/Technician	15.0607 Plastic Technology
15.0607 Plastics Technology/Technician	48.0604 Plastics
15.0611 Metallurgical Technology/Technician	41.0303 Metallurgical Technology
15.0699 Industrial Production Technologies/Technicians, Other	15.0602 Food Processing Technology
15.0699 Industrial Production Technologies/Technicians, Other	15.0606 Optical Technology
15.0699 Industrial Production Technologies/Technicians, Other	15.0609 Textile Technology
15.0699 Industrial Production Technologies/Technicians, Other	15.0610 Welding Technology
15.0699 Industrial Production Technologies/Technicians, Other	15.0699 Industrial Production Technologies, Other
15.07 Quality Control and Safety Technologies	15.07 Quality Control and Safety Technologies
15.0701 Occupational Safety and Health Technology/Technician	15.0701 Occupational Safety and Health Technology
15.0702 Quality Control Technology/Technician	15.0702 Quality Control Technology
15.0799 Quality Control and Safety Technologies/Technicians, Other	15.0799 Quality Control and Safety Technologies, Other
15.08 Mechanical Engineering-Related Technologies	15.08 Mechanical and Related Technologies
15.0801 Aeronautical and Aerospace Engineering Technology/Technician	15.0801 Aeronautical Technology
15.0803 Automotive Engineering Technology/Technician	15.0803 Automotive Technology
15.0805 Mechanical Engineering/Mechanical Technology/Technician	15.0805 Mechanical Design Technology
15.0899 Mechanical Engineering-Related Technologies/Technicians, Other	15.0804 Marine Propulsion Technology
15.0899 Mechanical Engineering-Related Technologies/Technicians, Other	15.0899 Mechanical and Related Technologies, Other
15.09 Mining and Petroleum Engineering Technologies	15.09 Mining and Petroleum Technologies
15.0901 Mining Technology/Technician	15.0901 Coal Mining Technology
15.0901 Mining Technology/Technician	15.0902 Mining (Excluding Coal) Technology
15.0903 Petroleum Technology/Technician	15.0903 Petroleum Technology
15.0999 Mining and Petroleum Technologies/Technicians, Other	15.0999 Mining and Petroleum Technologies, Other
15.10 Construction/Building Technology	15.10 Construction Technology
15.1001 Construction/Building Technology/Technician	15.1001 Construction Technology
15.11 Miscellaneous Engineering-Related Technologies	
15.11 Miscellaneous Engineering-Related Technologies	14.26 Surveying and Mapping Sciences
15.1101 Engineering Technology/Technician, General	
15.1102 Surveying	14.2601 Surveying and Mapping Sciences
	15.0203 Surveying and Mapping Technology

15.1103 Hydraulic Technology/Technician	
15.99 Engineering-Related Technologies, Other	15.99 Engineering and Engineering-Related Technologies, Other
15.9999 Engineering-Related Technologies/Technicians, Other	15.9999 Engineering and Engineering-Related Technologies, Other
16. FOREIGN LANGUAGES AND LITERATURES	16. FOREIGN LANGUAGES
16.01 Foreign Languages and Literatures	16.01 Foreign Languages, Multiple Emphasis
16.0101 Foreign Languages and Literatures, General	16.0101 Foreign Languages, Multiple Emphasis
16.0102 Linguistics	23.0601 Linguistics
16.0103 Foreign Language Interpretation and Translation	
	16.02 African (Non-Semitic) Languages
16.9999 Foreign Languages and Literatures, Other	16.0201 African (Non-Semitic) Languages and Literatures
16.03 East and Southeast Asian Languages and Literatures	16.03 Asiatic Languages
16.0301 Chinese Language and Literature	16.0301 Chinese
16.0302 Japanese Language and Literature	16.0302 Japanese
16.0399 East and Southeast Asian Languages and Literatures, Other	16.0399 Asiatic Languages, Other
16.04 East European Languages and Literatures	16.04 Balto-Slavic Languages
16.0402 Russian Language and Literature	16.0402 Russian
16.0403 Slavic Languages and Literatures (Other Than Russian)	16.0403 Slavic Languages (Other than Russian)
16.0499 East European Languages and Literatures, Other	16.0499 Balto-Slavic Languages, Other
16.05 Germanic Languages and Literatures	16.05 Germanic Languages
16.0501 German Language and Literature	16.0501 German
16.0502 Scandinavian Languages and Literatures	16.0502 Scandinavian Languages
16.0599 Germanic Languages and Literatures, Other	16.0599 Germanic Languages, Other
16.06 Greek Languages and Literatures (Modern)	16.06 Greek
16.0602 Greek Language and Literature (Modern)	
16.07 South Asian Languages and Literatures	16.07 Indic Languages
16.0703 South Asian Languages and Literatures	16.0703 Indic Languages
16.09 Romance Languages and Literatures	16.09 Italic Languages
16.0901 French Language and Literature	16.0901 French
16.0902 Italian Language and Literature	16.0902 Italian

16.0904 Portuguese Language and Literature	16.0904 Portuguese
16.0905 Spanish Language and Literature	16.0905 Spanish
16.0999 Romance Languages and Literatures, Other	16.0999 Italic Languages, Other
	16.10 Native American Languages
16.9999 Foreign Languages and Literatures, Other	16.1001 Native American Languages
16.11 Middle Eastern Languages and Literatures	16.11 Semitic Languages
16.1101 Arabic Language and Literature	16.1101 Arabic
16.1102 Hebrew Language and Literature	16.1102 Hebrew
16.1199 Middle Eastern Languages and Literatures, Other	16.1199 Semitic Languages, Other
16.12 Classical and Ancient Near Eastern Languages and Literatures	23.02 Classics
16.1201 Classics and Classical Languages and Literatures	23.0201 Classics
16.1202 Greek Language and Literature (Ancient and Medieval)	16.0601 Greek (Classical)
16.1203 Latin Language and Literature (Ancient and Medieval)	16.0903 Latin
16.1299 Classical and Ancient Near Eastern Languages and Literatures Other	
16.99 Foreign Languages and Literatures, Other	16.99 Foreign Languages, Other
16.9999 Foreign Languages and Literatures, Other	16.9999 Foreign Languages, Other
19. HOME ECONOMICS	19. HOME ECONOMICS
19.01 Home Economics, General	19.01 Home Economics, General
19.0101 Home Economics, General	19.0101 Home Economics, General
19.02 Home Economics Business Services	19.02 Business Home Economics
19.0201 Business Home Economics	19.0201 Business Home Economics
19.0202 Home Economics Communications	
19.03 Family and Community Studies	19.03 Family and Community Services
19.0301 Family and Community Studies	19.0301 Family and Community Services
19.04 Family/Consumer Resource Management	19.04 Family/Consumer Resource Management
19.0401 Family Resource Management Studies	19.0401 Family/Consumer Resource Management, General
19.0402 Consumer Economics and Science	19.0402 Consumer Science
19.0499 Family/Consumer Resource Management, Other	19.0499 Family/Consumer Resource Management, Other
19.05 Foods and Nutrition Studies	19.05 Food Sciences and Human Nutrition

19.0501 Foods and Nutrition Studies, General	19.0501 Food Sciences and Human Nutrition, General
19.0502 Foods and Nutrition Science	19.0502 Food/Food Sciences
19.0503 Dietetics/Human Nutritional Services	19.0503 Dietetics/Human Nutritional Services
19.0505 Food Systems Administration	
19.0599 Foods and Nutrition Studies, Other	19.0599 Food Sciences and Human Nutrition, Other
19.06 Housing Studies	19.06 Human Environment and Housing
19.0601 Housing Studies, General	19.0601 Human Environment and Housing, General
19.0601 Housing Studies, General	19.0602 Household Equipment
19.0603 Interior Environments	19.0603 Housing
19.0699 Housing Studies, Other	19.0699 Human Environment and Housing, Other
19.07 Individual and Family Development Studies	19.07 Individual and Family Development
19.0701 Individual and Family Development Studies, General	19.0701 Individual and Family Development, General
19.0703 Family and Marriage Counseling	19.0703 Family Counseling
19.0704 Family Life and Relations Studies	19.0704 Family Relations
19.0705 Gerontological Services	19.0705 Gerontological Services
19.0706 Child Growth, Care and Development Studies	
19.0799 Individual and Family Development Studies, Other	19.0799 Individual and Family Development, Other
19.09 Clothing/Apparel and Textile Studies	19.09 Textiles and Clothing
19.0901 Clothing/Apparel and Textile Studies	19.0901 Textiles and Clothing, General
19.0901 Clothing/Apparel and Textile Studies	19.0904 Textile Science
19.0901 Clothing/Apparel and Textile Studies	19.0999 Textiles and Clothing, Other
19.99 Home Economics, Other	19.99 Home Economics, Other
19.9999 Home Economics, Other	19.9999 Home Economics, Other
20. VOCATIONAL HOME ECONOMICS	20. VOCATIONAL HOME ECONOMICS
20.02 Child Care and Guidance Workers and Managers	20.02 Child Care and Guidance Management and Services
20.0201 Child Care and Guidance Workers and Managers, General	20.0201 Child Care and Guidance Management and Services, General
20.0202 Child Care Provider/Assistant	20.0202 Child Care Aide/Assisting
20.0203 Child Care Services Manager	20.0203 Child Care Management
20.0202 Child Care Provider/Assistant	20.0204 Foster Care/Family Care
20.0299 Child Care and Guidance Workers and Managers, Other	20.0299 Child Care and Guidance Management and Services, Other
20.03 Clothing, Apparel and Textile Workers and Managers	20.03 Clothing, Apparel and Textiles Management, Production and Services
20.0301 Clothing, Apparel and Textile Workers and Managers, General	20.0301 Clothing, Apparel and Textiles Management, Production and Services, General
20.0301 Clothing, Apparel and Textile Workers and Managers, General	20.0302 Clothing Maintenance Aide
20.0303 Commercial Garment and Apparel Worker	20.0303 Commercial Garment and Apparel Construction
20.0305 Custom Tailor	20.0304 Custom Apparel/Garment Seamstress

20.0305 Custom Tailor	20.0305 Custom Tailoring and Alteration
20.0306 Fashion and Fabric Consultant	20.0306 Fashion/Fabric Coordination
20.0306 Fashion and Fabric Consultant	20.0308 Wedding/Specialty Consulting
20.0309 Drycleaning and Laundering Services	12.0101 Drycleaning and Laundering Services
20.0399 Clothing, Apparel and Textile Workers and Managers, Other	20.0399 Clothing, Apparel and Textiles Management, Production and Services, Other
20.04 Institutional Food Workers and Administrators	20.04 Food Production, Management and Services
20.0401 Institutional Food Workers and Administrators, General	20.0401 Food Production, Management and Services, General
20.0404 Dietician Assistant	20.0404 Dietetic Aide/Assisting
20.0405 Food Caterer	20.0405 Food Catering
20.0409 Institutional Food Services Administrator	20.0406 Food Service
20.0409 Institutional Food Services Administrator	20.0408 School Food Service
20.0499 Institutional Food Workers and Administrators, Other	20.0499 Food Production, Management and Services, Other
20.05 Home Furnishings and Equipment Installers and Consultants	20.05 Home Furnishings and Equipment Management, Production and Services
20.0501 Home Furnishings and Equipment Installers and Consultants, General	20.0501 Home Furnishings and Equipment Management, Production and Services, General
20.0501 Home Furnishings and Equipment Installers and Consultants, General	20.0503 Custom Slipcovering and Upholstering
20.0501 Home Furnishings and Equipment Installers and Consultants, General	20.0504 Floral Design
20.0501 Home Furnishings and Equipment Installers and Consultants, General	20.0506 Home Furnishings Aide
20.0501 Home Furnishings and Equipment Installers and Consultants, General	20.0507 Home-Service Assisting
20.0502 Window Treatment Maker and Installer	20.0502 Custom Drapery and Window Treatment Design/Making
20.0599 Home Furnishings and equipment Installers and Consultants, Other	20.0505 Home Decorating
20.0599 Home Furnishings and Equipment Installers and Consultants Other	20.0599 Home Furnishings and Equipment Management, Production, and Services, Other
20.06 Custodial, Housekeeping and Home Services Workers and Managers, General	20.06 Institutional, Home Management and Supporting Services
20.0601 Custodial, Housekeeping and Home Services Workers and Managers, General	20.0601 Institutional, Home Management and Supporting Services, General
26.0601 Custodial, Housekeeping and Home Services Workers and Managers	20.0603 Consumer Aide/Assisting
20.0602 Elder Care Provider/Companion	20.0602 Companion to the Aged
20.0604 Custodian/Caretaker	20.0604 Custodial Services
20.0605 Executive Housekeeper	20.0605 Executive Housekeeping
20.0606 Homemaker's Aide	20.0606 Homemaker's Aide
20.0699 Custodial, Housekeeping and Home Services Workers and Managers	20.0699 Institutional, Home Management and Supporting Services, Other
20.99 Vocational Home Economics, Other	20.99 Vocational Home Economics, Other
20.9999 Vocational Home Economics, Other	20.9999 Vocational Home Economics, Other

22. LAW AND LEGAL STUDIES	**22. LAW**
22.01 Law and Legal Studies	**22.01 Law**
22.0101 Law (L.L.B., J.D.)	**22.0101 Law**
22.0102 Pre-Law Studies	**22.0102 Pre-Law**
22.0103 Paralegal/Legal Assistant	**22.0103 Legal Assisting**
22.0104 Juridical Science/Legal Specialization (LL.M., M.C.L., J.S.D./S.J.D.)	
22.0199 Law and Legal Studies, Other	**22.0199 Law, Other**
23. ENGLISH LANGUAGE AND LITERATURE/LETTERS	23. Letters
23.01 English Language and Literature, General	23.01 English, General
23.0101 English Language and Literature, General	23.0101 English, General
23.03 Comparative Literature	23.03 Comparative Literature
23.0301 Comparative Literature	23.0301 Comparative Literature
23.04 English Composition	23.04 Composition
23.0401 English Composition	23.0401 Composition
23.05 English Creative Writing	23.05 Creative Writing
23.0501 English Creative Writing	23.0501 Creative Writing
23.07 American Literature (United States)	23.07 Literature, American
23.0701 American Literature (United States)	23.0701 Literature, American
23.08 English Literature (British and Commonwealth)	23.08 Literature, English
23.0801 English Literature (British and Commonwealth)	23.0801 Literature, English
23.10 Speech and Rhetorical Studies	23.10 Speech, Debate, and Forensics
23.1001 Speech and Rhetorical Studies	23.1001 Speech, Debate, and Forensics
23.11 English Technical and Business Writing	23.11 Technical and Business Writing.
23.1101 English Technical and Business Writing	23.1101 Technical and Business Writing
	23.12 English as a Second Language
23.99 English Language and Literature/Letters, Other	23.99 Letters, Other
23.9999 English Language and Literature/Letters, Other	23.9999 Letters, Other

24. LIBERAL ARTS AND SCIENCES, GENERAL STUDIES AND HUMANITIES	24. LIBERAL/GENERAL STUDIES
24.01 Liberal Arts and Sciences, General Studies and Humanities	24.01 Liberal/General Studies
24.01 Liberal Arts and Sciences, General Studies and Humanities	30.04 Humanities and Social Sciences
24.0101 Liberal Arts and Sciences/Liberal Studies	24.0101 Liberal Arts and Sciences
24.0102 General Studies	24.0102 General Studies
24.0103 Humanities/Humanistic Studies	30.0401 Humanities and Social Studies
24.0199 Liberal Arts and Sciences, General Studies and Humanities, Other	24.0199 Liberal/General Studies, Other
25. LIBRARY SCIENCE	25. LIBRARY AND ARCHIVAL SCIENCES
25.01 Library Science/Librarianship	25.01 Library and Archival Sciences, General
25.01 Library Science/Librarianship	25.04 Library Science
25.0101 Library Science/Librarianship	25.0101 Library and Archival Sciences, General
25.0101 Library Science/Librarianship	25.0104 Library Sciences
	25.02 Archival Science
25.03 Library Assistant	25.03 Library Assisting
25.0301 Library Assistant	25.0301 Library Assisting
	25.05 Museology
25.99 Library Science, Other	25.99 Library and Archival Sciences, Other
25.9999 Library Science, Other	25.9999 Library and Archival Sciences, Other
26. BIOLOGICAL SCIENCES/LIFE SCIENCES	26. LIFE SCIENCES
26.01 Biology, General	26.01 Biology, General
26.0101 Biology, General	26.0101 Biology, General
26.02 Biochemistry and Biophysics	26.02 Biochemistry and Biophysics
26.0202 Biochemistry	26.0201 Biochemistry and Biophysics
26.0203 Biophysics	26.0201 Biochemistry and Biophysics
26.03 Botany	26.03 Botany
26.0301 Botany, General	26.0301 Botany, General
26.0305 Plant Pathology	26.0305 Plant Pathology
26.0307 Plant Physiology	26.0307 Plant Physiology
26.0399 Botany, Other	26.0399 Botany, Other

26.04 Cell and Molecular Biology	26.04 Cell and Molecular Biology
26.0401 Cell Biology	26.0401 Cell Biology
26.0402 Molecular Biology	26.0402 Molecular Biology
26.0499 Cell and Molecular Biology, Other	26.0499 Cell and Molecular Biology, Other
26.05 Microbiology/Bacteriology	26.05 Microbiology
26.0501 Microbiology/Bacteriology	26.0501 Microbiology
26.0501 Microbiology/Bacteriology	26.0302 Bacteriology
26.06 Miscellaneous Biological Specializations	26.06 Miscellaneous Specialized Areas, Life Sciences
26.0601 Anatomy	26.0601 Anatomy
26.0603 Ecology	26.0603 Ecology
26.0607 Marine/Aquatic Biology	26.0607 Marine Biology
26.0608 Neuroscience	26.0608 Neuroscience
26.0609 Nutritional Sciences	26.0609 Nutritional Sciences
26.0610 Parasitology	26.0610 Parasitology
26.0611 Radiation Biology/Radiobiology	26.0611 Radiobiology
26.0612 Toxicology	26.0612 Toxicology
26.0613 Genetics, Plant and Animal	26.0304 Plant Genetics
26.0613 Genetics, Plant and Animal	26.0703 Genetics, Human and Animal
26.0614 Biometrics	26.0602 Biometrics and Biostatistics
26.0615 Biostatistics	26.0602 Biometrics and Biostatistics
26.0616 Biotechnology Research	
26.0617 Evolutionary Biology	
26.0618 Biological Immunology	
26.0619 Virology	
26.0699 Miscellaneous Biological Specializations, Other	26.0604 Embryology
26.0699 Miscellaneous Biological Specializations, Other	26.0605 Endocrinology
26.0699 Miscellaneous Biological Specializations, Other	26.0606 Histology
26.0699 Miscellaneous Biological Specializations, Other	26.0699 Miscellaneous Specialized Areas, Life Sciences, Other
26.07 Zoology	26.07 Zoology
26.0701 Zoology, General	26.0701 Zoology, General
26.0702 Entomology	26.0702 Entomology
26.0704 Pathology, Human and Animal	26.0704 Pathology, Human and Animal
26.0705 Pharmacology, Human and Animal	26.0705 Pharmacology, Human and Animal
26.0706 Physiology, Human and Animal	26.0706 Physiology, Human and Animal
26.0799 Zoology, Other	26.0799 Zoology, Other
26.99 Biological Sciences/Life Sciences, Other	26.99 Life Sciences, Other
26.9999 Biological Sciences/Life Sciences, Other	26.9999 Life Sciences, Other
27. MATHEMATICS	27. MATHEMATICS
27.01 Mathematics	27.01 Mathematics, General
27.01 Mathematics	27.04 Pure Mathematics

27.0101 Mathematics	27.0101 Mathematics, General
27.0101 Mathematics	27.0401 Pure Mathematics
27.03 Applied Mathematics	27.03 Applied Mathematics
27.0301 Applied Mathematics, General	27.0301 Applied Mathematics
27.0302 Operations Research	06.1302 Operations Research (Quantitative Methods)
27.0399 Applied Mathematics, Other	
27.05 Mathematical Statistics	27.05 Statistics
27.0501 Mathematical Statistics	27.0501 Statistics
27.99 Mathematics, Other	27.99 Mathematics, Other
27.9999 Mathematics, Other	27.9999 Mathematics, Other
29. MILITARY TECHNOLOGIES	29. MILITARY TECHNOLOGIES
29.01 Military Technologies	29.01 Military Technologies
29.01 Military Technologies	29.99 Military Technologies, Other
29.0101 Military Technologies	29.0101 Military Technologies
29.0101 Military Technologies	29.9999 Military Technologies, Other
30. MULTI/INTERDISCIPLINARY STUDIES	30. MULTI/INTERDISCIPLINARY STUDIES
30.01 Biological and Physical Sciences	30.01 Biological and Physical Sciences
30.0101 Biological and Physical Sciences	30.0101 Biological and Physical Sciences
30.05 Peace and Conflict Studies	30.05 Peace Studies
30.0501 Peace and Conflict Studies	30.0501 Peace Studies
30.06 Systems Science and Theory	30.06 Systems Science
30.0601 Systems Science and Theory	30.0601 Systems Science
	30.07 Women's Studies
30.08 Mathematics and Computer Science	30.08 Mathematics and Computer Science
30.0801 Mathematics and Computer Science	30.0801 Mathematics and Computer Science

30.10 Biopsychology	
30.1001 Biopsychology	
30.11 Gerontology	
30.1101 Gerontology	
30.12 Historic Preservation, Conservation and Architectural History	
30.1201 History Preservation, Conservation and Architectural History	
30.13 Medieval and Renaissance Studies	
30.1301 Medieval and Renaissance Studies	
30.14 Museology/Museum Studies	25.05 Museology
30.1401 Museology/Museum Studies	25.0501 Museology
30.15 Science, Technology and Society	
30.1501 Science, Technology and Society	
30.99 Multi/Interdisciplinary Studies, Other	30.03 Engineering and Other Disciplines
30.9999 Multi/Interdisciplinary Studies, Other	30.0301 Engineering and Other Disciplines
30.99 Multi/Interdisciplinary Studies, Other	30.09 Imaging Science
30.9999 Multi/Interdisciplinary Studies, Other	30.0901 Imaging Science
30.99 Multi/Interdisciplinary Studies, Other	30.99 Multi/Interdisciplinary Studies, Other
30.9999 Multi/Interdisciplinary Studies, Other	30.9999 Multi/Interdisciplinary Studies, Other
31. PARKS, RECREATION, LEISURE AND FITNESS STUDIES	31. PARKS AND RECREATION
31.01 Parks, Recreation and Leisure Studies	31.01 Parks and Recreation, General
31.0101 Parks, Recreation and Leisure Studies	31.0101 Parks and Recreation, General
31.01 Parks, Recreation and Leisure Studies	31.02 Outdoor Recreation
31.0101 Parks, Recreation and Leisure Studies	31.0201 Outdoor Recreation

31.03 Parks, Recreation and Leisure Facilities Management	31.03 Parks and Recreation Management
31.0301 Parks, Recreation and Leisure Facilities Management	31.0301 Parks and Recreation Management
31.05 Health and Physical Education/Fitness	
31.0501 Health and Physical Education, General	
31.0502 Adapted Physical Education/Therapeutic Recreation	
31.0503 Athletic Training and Sports Medicine	
31.0504 Sport and Fitness Administration/Management	
31.0505 Exercise Science/Physiology and Movement Studies	
31.0506 Socio-Psychological Sports Studies	
31.0599 Health and Physical Education/Fitness, Other	
31.99 Parks, Recreation, Leisure and Fitness Studies, Other	31.04 Water Resources
31.99 Parks, Recreation, Leisure and Fitness Studies, Other	31.99 Parks and Recreation, Other
31.9999 Parks, Recreation, Leisure and Fitness Studies, Other	31.0401 Water Resources
31.9999 Parks, Recreation, Leisure and Fitness Studies, Other	31.9999 Parks and Recreation, Other
38. PHILOSOPHY AND RELIGION	38. PHILOSOPHY AND RELIGION
38.01 Philosophy	38.01 Philosophy
38.0101 Philosophy	38.0101 Philosophy
38.02 Religion/Religious Studies	38.02 Religion
38.0201 Religion/Religious Studies	38.0201 Religion
38.99 Philosophy and Religion	38.99 Philosophy and Religion, Other
38.9999 Philosophy and Religion	38.9999 Philosophy and Religion, Other
39. THEOLOGY STUDIES AND RELIGIOUS VOCATIONS	39. THEOLOGY
39.01 Biblical and Other Theological Languages and Literatures	39.01 Biblical Languages
39.0101 Biblical and Other Theological Languages and Literatures	39.0101 Biblical Languages
39.02 Bible/Biblical Studies	39.02 Bible Studies
39.0201 Bible/Biblical Studies	39.0201 Bible Studies
39.03 Missions/Missionary Studies and Misology	39.03 Missionary Studies
39.0301 Missions/Missionary Studies and Missiology	39.0301 Missionary Studies

39.04 Religious Education	39.04 Religious Education
39.0401 Religious Education	39.0401 Religious Education
39.05 Religious/Sacred Music	39.05 Religious Music
39.0501 Religious/Sacred Music	39.0501 Religious Music
39.06 Theological and Ministerial Studies	39.06 Theological Studies
39.0601 Theology/Theological Studies	39.0601 Theological Studies
39.0602 Divinity/Ministry (B.D., M.Div.)	
39.0603 Rabbinical and Talmudic Studies (M.H.L./Rav)	
39.0604 Pre-Theological/Pre-Ministerial Studies	
39.0699 Theological and Ministerial Studies, Other	
39.07 Pastoral Counseling and Specialized Ministries	30.02 Clinical Pastoral Counseling
39.0701 Pastoral Counseling and Specialized Ministries	30.0201 Clinical Pastoral Counseling
39.99 Theological Studies and Religious Vocations, Other	39.99 Theology, Other
39.9999 Theological Studies and Religious Vocations, Other	39.9999 Theology, Other
40. PHYSICAL SCIENCES	40. PHYSICAL SCIENCES
40.01 Physical Sciences, General	40.01 Physical Sciences, General
40.0101 Physical Sciences, General	40.0101 Physical Sciences, General
40.02 Astronomy	40.02 Astronomy
40.0201 Astronomy	40.0201 Astronomy
40.03 Astrophysics	40.03 Astrophysics
40.0301 Astrophysics	40.0301 Astrophysics
40.04 Atmospheric Sciences and Meteorology	40.04 Atmospheric Sciences and Meteorology
40.0401 Atmospheric Sciences and Meteorology	40.0401 Atmospheric Sciences and Meteorology
40.05 Chemistry	40.05 Chemistry
40.0501 Chemistry, General	40.0501 Chemistry, General
40.0502 Analytical Chemistry	40.0502 Analytical Chemistry
40.0503 Inorganic Chemistry	40.0503 Inorganic Chemistry
40.0504 Organic Chemistry	40.0504 Organic Chemistry
40.0505 Medicinal/Pharmaceutical Chemistry	40.0505 Pharmaceutical Chemistry

40.0506 Physical and Theoretical Chemistry	40.0506 Physical Chemistry
40.0507 Polymer Chemistry	
40.0599 Chemistry, Other	40.0599 Chemistry, Other
40.06 Geological and Related Sciences	40.06 Geological Sciences
40.0601 Geology	40.0601 Geology
40.0602 Geochemistry	40.0602 Geochemistry
40.0603 Geophysics and Seismology	40.0603 Geophysics and Seismology
40.0604 Paleontology	40.0604 Paleontology
40.0699 Geological and Related Sciences, Other	40.0699 Geological Sciences, Other
40.07 Miscellaneous Physical Sciences	40.07 Miscellaneous Physical Sciences
40.0701 Metallurgy	40.0701 Metallurgy
40.0702 Oceanography	40.0702 Oceanography
40.0702 Oceanography	41.0102 Oceanographic (Biological) Technology
40.0702 Oceanography	41.0305 Oceanographic (Physical) Technology
40.0703 Earth and Planetary Sciences	40.0703 Earth Science
40.0703 Earth and Planetary Sciences	40.0901 Planetary Science
40.0799 Miscellaneous Physical Sciences, Other	40.0799 Miscellaneous Physical Sciences, Other
40.08 Physics	40.08 Physics
40.0801 Physics, General	40.0801 Physics, General
40.0802 Chemical and Atomic/Molecular Physics	40.0802 Atomic/Molecular Physics
40.0804 Elementary Particle Physics	
40.0805 Plasma and High-Temperature Physics	
40.0806 Nuclear Physics	40.0806 Nuclear Physics
40.0807 Optics	40.0807 Optics
40.0808 Solid state and Low-Temperature Physics	40.0808 Solid state Physics
40.0809 Acoustics	
40.0810 Theoretical and Mathematical Physics	
40.0899 Physics, Other	40.0899 Physics, Other
	40.09 Planetary Sciences
40.99 Physical Sciences, Other	40.99 Physical Sciences, Other
40.9999 Physical Sciences, Other	40.9999 Physical Sciences, Other
41. SCIENCE TECHNOLOGIES	41. SCIENCE TECHNOLOGIES
41.01 Biological Technology	41.01 Biological Technologies
41.0101 Biological Technology/Technician	41.0101 Biological Laboratory Technology
41.0101 Biological Technology/Technician	41.0199 Biological Laboratory Technology, Other
41.02 Nuclear and Industrial Radiologic Technologies	41.02 Nuclear Technologies
41.0204 Industrial Radiologic Technology/Technician	41.0204 Radiologic (Physical) Technology

41.0205 Nuclear/Nuclear Power Technology/Technician	41.0201 Nuclear Materials Handling Technology
41.0205 Nuclear/Nuclear Power Technology/Technician	41.0202 Nuclear Power Plant Operation Technology
41.0205 Nuclear/Nuclear Power Technology/Technician	41.0203 Nuclear Power Plant Radiation Control Technology
41.0299 Nuclear and Industrial Radiologic Technologies/Technicians, Other	41.0299 Nuclear Technologies, Other
41.03 Physical Science Technologies	41.03 Physical Science Technologies
41.0301 Chemical Technology/Technician	41.0301 Chemical Technology
41.0399 Physical Science Technologies/Technicians, Other	41.0302 Geological Technology
41.0399 Physical Science Technologies/Technicians, Other	41.0304 Meteorological Technology
41.0399 Physical Science Technologies/Technicians, Other	41.0399 Physical Science Technologies, Other
41.99 Science Technologies, Other	41.99 Science Technologies, Other
41.9999 Science Technologies/Technicians, Other	41.9999 Science Technologies, Other
42. PSYCHOLOGY	42. PSYCHOLOGY
42.01 Psychology, General	42.01 Psychology, General
42.0101 Psychology, General	42.0101 Psychology, General
42.02 Clinical Psychology	42.02 Clinical Psychology
42.0201 Clinical Psychology	42.0201 Clinical Psychology
42.03 Cognitive Psychology and Psycholinguistics	42.03 Cognitive Psychology
42.0301 Cognitive Psychology and Psycholinguistics	42.0301 Cognitive Psychology
42.0301 Cognitive Psychology and Psycholinguistics	42.1201 Psycholinguistics
42.04 Community Psychology	42.04 Community Psychology
42.0401 Community Psychology	42.0401 Community Psychology
	42.05 Comparative Psychology
42.06 Counseling Psychology	42.06 Counseling Psychology
42.0601 Counseling Psychology	42.0601 Counseling Psychology
42.07 Developmental and Child Psychology	42.07 Developmental Psychology
42.0701 Developmental and Child Psychology	42.0701 Developmental Psychology
42.08 Experimental Psychology	42.08 Experimental Psychology
42.0801 Experimental Psychology	42.0801 Experimental Psychology

42.09 Industrial and Organizational Psychology	42.09 Industrial and Organizational Psychology
42.0901 Industrial and Organizational Psychology	42.0901 Industrial and Organizational Psychology
	42.10 Personality Psychology
42.11 Physiological Psychology/Psychobiology	42.11 Physiological Psychology
42.1101 Physiological Psychology/Psychobiology	42.1101 Physiological Psychology
	42.12 Psycholinguistics
	42.13 Psychometrics
	42.14 Psychopharmacology
	42.15 Quantitative Psychology
42.16 Social Psychology	42.16 Social Psychology
42.1601 Social Psychology	42.1601 Social Psychology
42.17 School Psychology	13.08 School Psychology
42.1701 School Psychology	13.0801 School Psychology
42.99 Psychology, Other	42.99 Psychology, Other
42.9999 Psychology, Other	42.0501 Comparative Psychology
42.9999 Psychology, Other	42.1001 Personality Psychology
42.9999 Psychology, Other	42.1301 Psychometrics
42.9999 Psychology, Other	42.1401 Psychopharmacology
42.9999 Psychology, Other	42.1501 Quantitative Psychology
42.9999 Psychology, Other	42.9999 Psychology, Other
43. PROTECTIVE SERVICES	43. PROTECTIVE SERVICES
43.01 Criminal Justice and Corrections	43.01 Criminal Justice
43.0102 Corrections/Correctional Administration	43.0101 Correctional Administration
43.0102 Corrections/Correctional Administration	43.0102 Corrections
43.0103 Criminal Justice/Law Enforcement Administration	43.0103 Criminal Justice Administration
43.0103 Criminal Justice/Law Enforcement Administration	43.0108 Law Enforcement Administration
43.0104 Criminal Justice Studies	43.0104 Criminal Justice Studies
43.0106 Forensic Technology/Technician	43.0106 Forensic Studies
43.0107 Law Enforcement/Police Science	43.0105 Criminal Justice Technology
43.0107 Law Enforcement/Police Science	43.0107 Law Enforcement
43.0109 Security and Loss Prevention Services	43.0109 Security Services

43.0199 Criminal Justice and Corrections, Other	43.0199 Criminal Justice, Other
43.02 Fire Protection	43.02 Fire Protection
43.0201 Fire Protection and Safety Technology/Technician	43.0201 Fire Control and Safety Technology
43.0202 Fire Services Administration	43.0202 Fire Protection Administration
43.0203 Fire Science/Firefighting	43.0203 Firefighting
43.0299 Fire Protection, Other	43.0299 Fire Protection, Other
43.99 Protective Services, Other	43.99 Protective Services, Other
43.9999 Protective Services, Other	43.9999 Protective Services, Other
44. PUBLIC ADMINISTRATION AND SERVICES	44. PUBLIC AFFAIRS
	44.01 Public Affairs, General
44.02 Community Organization, Resources and Services	44.02 Community Services
44.0201 Community Organization, Resources and Services	44.0201 Community Services
	44.03 International Public Service
44.04 Public Administration	44.04 Public Administration
44.0401 Public Administration	44.0101 Public Affairs
44.0401 Public Administration	44.0401 Public Administration
44.05 Public Policy Analysis	44.05 Public Policy Studies
44.0501 Public Policy Analysis	44.0501 Public Policy Studies
	44.03 Public Works
44.07 Social Work	44.07 Social Work
44.0701 Social Work	44.0701 Social Work, General
44.0701 Social Work	44.0799 Social Work, Other
44.99 Public Administration and Services, Other	44.99 Public Affairs, Other
44.9999 Public Administration and Services, Other	44.0601 Public Sanitation
44.9999 Public Administration and Services, Other	44.0602 Public Transportation
44.9999 Public Administration and Services, Other	44.0603 Public Utilities
44.9999 Public Administration and Services, Other	44.0699 Public Works, Other
44.9999 Public Administration and Services, Other	44.0699 Public Affairs, Other

45. SOCIAL SCIENCES AND HISTORY	**45. SOCIAL SCIENCES**
45.01 Social Sciences, General	45.01 Social Sciences, General
45.0101 Social Sciences, General	45.0101 Social Sciences, General
45.02 Anthropology	45.02 Anthropology
45.0201 Anthropology	45.0201 Anthropology
45.03 Archaeology	45.03 Archaeology
45.0301 Archaeology	45.0301 Archaeology
45.0301 Archaeology	45.0302 Archaeological Technology
45.04 Criminology	45.04 Criminology
45.0401 Criminology	45.0401 Criminology
45.05 Demography and Population Studies	45.05 Demography
45.0501 Demography and Population Studies	45.0501 Demography
45.06 Economics	45.06 Economics
45.0601 Economics, General	45.0601 Economics
45.0602 Applied and Resource Economics	
45.0603 Econometrics and Quantitative Economics	
45.0604 Development Economics and International Development	
45.0605 International Economics	
45.0699 Economics, Other	
45.07 Geography	45.07 Geography
45.0701 Geography	45.0701 Geography
45.0702 Cartography	14.2602 Cartography
45.08 History	45.08 History
45.0801 History, General	45.0801 History
45.0802 American (United States) History	
45.0803 European History	
45.0804 History and Philosophy of Science and Technology	
45.0805 Public/Applied History and Archival Administration	25.0201 Archival Science
45.0899 History, Other	
45.09 International Relations and Affairs	45.09 International Relations
45.0901 International Relations and Affairs	44.0301 International Public Service
45.0901 International Relations and Affairs	45.0901 International Relations

45.10 Political Science and Government	45.10 Political Science and Government
45.1001 Political Science and Government, General 45.1002 American Government and Politics 45.1099 Political Science and Government, Other	45.1001 Political Science and Government
45.11 Sociology	45.11 Sociology
45.1101 Sociology	45.1101 Sociology
45.12 Urban Affairs/Studies	45.12 Urban Studies
45.1201 Urban Affairs/Studies	45.1201 Urban Studies
45.99 Social Sciences and History, Other	45.99 Social Sciences, Other
45.9999 Social Sciences and History, Other	45.9999 Social Sciences, Other
46. CONSTRUCTION TRADES	46. CONSTRUCTION TRADES
46.01 Masons and Tile Setters	46.01 Brickmasonry, Stonemasonry and Tile Setting
46.0101 Mason and Tile Setter	46.0101 Brickmasonry, Stonemasonry and Tile Setting, General
46.0101 Mason and Tile Setter	46.0102 Brickmasonry, Block and Stonemasonry
46.0101 Mason and Tile Setter	46.0103 Tile Setting
46.0101 Mason and Tile Setter	46.0199 Brickmasonry, Stonemasonry and Tile Setting, Other
46.02 Carpenters	46.02 Carpentry
46.0201 Carpenter	46.0201 Carpentry
46.03 Electrical and Power Transmission Installers	46.03 Electrical and Power Transmission Installation
46.0301 Electrical and Power Transmission Installer, General General	46.0301 Electrical and Power Transmission Installation,
46.0302 Electrician	46.0302 Electrician
46.0303 Lineworker	46.0303 Lineworker
46.0399 Electrical and Power Transmission Installers, Other	46.0399 Electrical and Power Transmission Installation, Other
46.04 Construction and Building Finishers and Managers	46.04 Miscellaneous Construction Trades and Property Maintenance
46.0401 Building/Property Maintenance and Manager	46.0401 Building and Property Maintenance
46.0403 Construction/Building Inspector	46.0403 Construction Inspection
46.0408 Painter and Wall Coverer	46.0408 Painting and Decorating
46.0499 Construction and Building Finishers and Managers	46.0499 Miscellaneous Construction Trades and Property Maintenance, Other

46.05 Plumbers and Pipefitters	**46.05 Plumbing, Pipefitting and Steamfitting**
46.0501 Plumber and Pipefitter	46.0501 Plumbing, Pipefitting and Steamfitting, General
46.0501 Plumber and Pipefitter	46.0502 Pipefitting and Steamfitting
46.0501 Plumber and Pipefitter	46.0503 Plumbing
46.0501 Plumber and Pipefitter	46.0599 Plumbing, Pipefitting and Steamfitting, Other
46.99 Construction Trades, Other	46.99 Construction Trades, Other
46.9999 Construction Trades, Other	46.0402 Concrete Placing and Finishing
46.9999 Construction Trades, Other	46.0404 Drywall Installation
46.9999 Construction Trades, Other	46.0405 Floor Covering Installation
46.9999 Construction Trades, Other	46.0406 Glazing
46.9999 Construction Trades, Other	46.0407 Insulation Installation
46.9999 Construction Trades, Other	46.0409 Plastering
46.9999 Construction Trades, Other	46.0410 Roofing
46.9999 Construction Trades, Other	46.9999 Construction Trades, Other
47. MECHANICS AND REPAIRERS	47. MECHANICS AND REPAIRERS
47.01 Electrical and Electronics Equipment Installers and Repairers	47.01 Electrical and Electronics Equipment Repair
47.0101 Electrical and Electronics Equipment Installer and Repairer, General	47.0101 Electrical and Electronics Equipment Repair, General
47.0102 Business Machine Repairer	47.0102 Business Machine Repair
47.0103 Communication Systems Installer and Repairer	47.0103 Communication Electronics
47.0104 Computer Installer and Repairer	47.0104 Computer Electronics
47.0105 Industrial Electronics Installer and Repairer	47.0105 Industrial Electronics
47.0106 Major Appliance Installer and Repairer	47.0106 Major Appliance Repair
47.0199 Electrical and Electronics Equipment Installer and Repairer, Other	47.0107 Motor Repair
47.0199 Electrical and Electronics Equipment Installer and Repairer, Other	47.0108 Small Appliance Repair
47.0199 Electrical and Electronics Equipment Installer and Repairer, Other	47.0109 Vending and Recreational Machine Repair
47.0199 Electrical and Electronics Equipment Installer and Repairer, Other	47.0199 Electrical and Electronics Equipment Repair, Other
47.02 Heating, Air Conditioning and Refrigeration Mechanics	47.02 Heating, Air Conditioning and Refrigeration Mechanicsand Repairers
47.0201 Heating, Air Conditioning and Refrigeration Mechanic and Repairer	47.0201 Heating, Air Conditioning and Refrigeration Mechanics, General
47.0201 Heating, Air Conditioning and Refrigeration Mechanic and Repairer	47.0202 Cooling and Refrigeration
47.0201 Heating, Air Conditioning and Refrigeration Mechanic and Repairer	47.0203 Heating and Air Conditioning
47.0201 Heating, Air Conditioning and Refrigeration Mechanic and Repairer	47.0299 Heating, Air Conditioning and Refrigeration Mechanics, Other
47.03 Industrial Equipment Maintenance and Repairers	47.03 Industrial Equipment Maintenance and Repair
47.0302 Heavy Equipment Maintenance and Repairer	47.0302 Heavy Equipment Maintenance and Repair

47.0303 Industrial Machinery Maintenance and Repairer	47.0303 Industrial Machinery Maintenance and Repair
47.0399 Industrial Equipment Maintenance and Repairers, Other	47.0301 Industrial Equipment Maintenance and Repair, General
47.0399 Industrial Equipment Maintenance and Repairers, Other	47.0304 Mine Equipment Maintenance and Repair
47.0399 Industrial Equipment Maintenance and Repairers, Other	47.0305 Oil and Gas Drilling Equipment Operation and Maintenance
47.0399 Industrial Equipment Maintenance and Repairers, Other	47.0399 Industrial Equipment Maintenance and Repair, Other
47.04 Miscellaneous Mechanics and Repairers	47.04 Miscellaneous Mechanics and Repairers
47.0401 Instrument Calibration and Repairer Instrument Repair	47.0401 Electromechanical, Hydraulic and Pneumatic
47.0402 Gunsmith	47.0402 Gunsmithing
47.0403 Locksmith and Safe Repairer	47.0403 Locksmithing and Safe Repair
47.0404 Musical Instrument Repairer	47.0404 Musical Instrument Repair
47.0408 Watch, Clock and Jewelry Repairer	48.0602 Jewelry Design, Fabrication and Repair
47.0408 Watch, Clock and Jewelry Repairer	47.0408 Watch Repair
47.0499 Miscellaneous Mechanics and Repairers, Other	47.0405 Operation, Maintenance and Repair of Audio-Visual Equipment
47.0499 Miscellaneous Mechanics and Repairers, Other	47.0407 Sporting Goods Equipment Repair
47.0499 Miscellaneous Mechanics and Repairers, Other	47.0499 Miscellaneous Mechanics and Repairers, Other
47.05 Stationary Energy Sources Installers and Operators	47.05 Stationary Energy Sources
47.0501 Stationary Energy Sources Installer and Operator	47.0501 Stationary Energy Sources, General
47.0501 Stationary Energy Sources Installer and Operator	47.0502 Conventional Electrical Power Generation
47.0501 Stationary Energy Sources Installer and Operator	47.0504 Pumping Plants
47.0501 Stationary Energy Sources Installer and Operator	47.0599 Stationary Energy Sources, Other
47.06 Vehicle and Mobile Equipment Mechanics and Repairers	47.06 Vehicle and Mobile Equipment and Repairers
47.0603 Auto/Automotive Body Repairer	47.0603 Automotive Body Repair
47.0604 Auto/Automotive Mechanic/Technician	47.0604 Automotive Mechanics
47.0605 Diesel Engine Mechanic and Repairer	47.0605 Diesel Engine Mechanics
47.0606 Small Engine Mechanic and Repairer	47.0606 Small Engine Repair
47.0607 Aircraft Mechanic/Technician, Airframe	47.0607 Aircraft Mechanics, Airframe
47.0608 Aircraft Mechanic/Technician, Powerplant	47.0608 Aircraft Mechanics, Powerplant
47.0609 Aviation Systems and Avionics Maintenance Technologist/Technician	
47.0610 Bicycle Mechanic and Repairer	
47.0611 Motorcycle Mechanic and Repairer	
47.0699 Vehicle and Mobile Equipment Mechanics and Repairers, Other	47.0601 Vehicle and Mobile Equipment Mechanics and Repairers, General
47.0699 Vehicle and Mobile Equipment Mechanics and Repairers, Other	47.0699 Vehicle and Mobile Equipment Mechanics and Repairers, Other
47.99 Mechanics and Repairers, Other	47.99 Mechanics and Repairers, Other
47.9999 Mechanics and Repairers, Other	47.9999 Mechanics and Repairers, Other
48. PRECISION PRODUCTION TRADES	48. PRECISION PRODUCTION

48.01 Drafting	48.01 Drafting
48.0101 Drafting, General	15.0202 Drafting and Design Technology
48.0101 Drafting, General	48.0101 Drafting, General
48.0102 Architectural Drafting	48.0102 Architectural Drafting
48.0103 Civil/Structural Drafting	48.0103 Civil/Structural Drafting
48.0104 Electrical/Electronics Drafting	48.0104 Electrical/Electronics Drafting
48.0105 Mechanical Drafting	48.0105 Mechanical Drafting
48.0199 Drafting, Other	48.0199 Drafting, Other
48.02 Graphic and Printing Equipment Operators	48.02 Graphic and Printing Communications
48.0201 Graphic and Printing Equipment Operator, General	48.0201 Graphic and Printing Communications, General
48.0205 Mechanical Typesetter and Composer	48.0205 Typesetting, Make-up and Composition
48.0206 Lithographer and Platemaker	48.0206 Lithography, Photography and Platemaking
48.0208 Printing Press Operator	48.0208 Printing Press Operations
48.0211 Computer Typography and Composition Equipment Operator	
41.0212 Desktop Publishing Equipment Operator	
48.0299 Graphic and Printing Equipment Operators, Other	48.0202 Bookbinding
48.0299 Graphic and Printing Equipment Operators, Other	48.0209 Silk Screen Making and Printing
48.0299 Graphic and Printing Equipment Operators, Other	48.0210 Photoengraving
48.0299 Graphic and Printing Equipment Operators, Other	48.0299 Graphic and Printing Communications, Other
48.03 Leatherworkers and Upholsterers	48.03 Leatherworking and Upholstering
48.0303 Upholsterer	48.0303 Upholstering
48.0304 Shoe, Boot and Leather Repairer	48.0304 Shoe and Boot Repair
48.0399 Leatherworkers and Upholsterers, Other	48.0301 Leatherworking and Upholstery, General
48.0399 Leatherworkers and Upholsterers, Other	48.0302 Saddlemaking and Repair
48.0399 Leatherworkers and Upholsterers, Other	48.0399 Leatherworking and Upholstering, Other
	48.04 Precision Food Production
48.05 Precision Metal Workers	48.05 Precision Metal Work
48.0501 Machinist/Machine Technologist	48.0501 Precision Metal Work, General
48.0501 Machinist/Machine Technologist	48.0504 Metal Fabrication
48.0501 Machinist/Machine Technologist	48.0505 Metal Patternmaking
48.0503 Machine Shop Assistant	48.0503 Machine Tool Operation/Machine Shop
48.0506 Sheet Metal Worker	48.0506 Sheet Metal
48.0507 Tool and Die Maker/Technologist	48.0507 Tool and Die Making
48.0508 Welder/Welding Technologist	48.0508 Welding
48.0599 Precision Metal Workers, Other	48.0502 Foundry Work
48.0599 Precision Metal Workers, Other	48.0599 Precision Metal Work, Other
	48.06 Precision Work, Assorted Materials
48.07 Woodworkers	48.07 Woodworking
48.0701 Woodworker, General	48.0701 Woodworking, General
48.0702 Furniture Designer and Maker	48.0702 Furniture Making
48.0703 Cabinet Maker and Millworker	48.0703 Millwork and Cabinet Making

48.0799 Woodworkers, Other	48.0799 Woodworking, Other
48.99 Precision Production Trades, Other	48.99 Precision Production, Other
48.9999 Precision Production Trades, Other	48.0601 Industrial Ceramics Manufacturing
48.9999 Precision Production Trades, Other	48.0699 Precision Work, Assorted Materials, Other
48.9999 Precision Production Trades, Other	48.0401 Precision Food Production, General
48.9999 Precision Production Trades, Other	48.9999 Precision Production, Other
49. TRANSPORTATION AND MATERIALS MOVING WORKERS	49. TRANSPORTATION AND MATERIAL MOVING
49.01 Air Transportation Workers	49.01 Air Transportation
49.0101 Aviation and Airway Science	49.0101 Air Transportation, General
49.0102 Aircraft Pilot and Navigator (Professional)	49.0102 Air Piloting and Navigation (Commercial)
49.0104 Aviation Management	49.0104 Aviation Management
49.0105 Air Traffic Controller	49.0105 Air Traffic Control
49.0106 Flight Attendant	49.0106 Flight Attendant
49.0107 Aircraft Pilot (Private)	49.0107 Airplane Piloting (Private)
49.0199 Air Transportation Workers, Other	49.0199 Air Transportation, Other
49.02 Vehicle and Equipment Operators	49.02 Vehicle and Equipment Operation
49.0202 Construction Equipment Operator	49.0202 Construction Equipment Operation
49.0205 Truck, Bus and Other Commercial Vehicle Operator	49.0205 Truck and Bus Driving
49.0299 Vehicle and Equipment Operators, Other	49.0203 Material Handling
49.0299 Vehicle and Equipment Operators, Other	49.0204 Mining Equipment Operation
49.0299 Vehicle and Equipment Operators, Other	49.0201 Vehicle and Equipment Operation, General
49.0299 Vehicle and Equipment Operators, Other	49.0299 Vehicle and Equipment Operation, Other
49.03 Water Transportation Workers	49.03 Water Transportation
49.0303 Fishing Technology/Commercial Fishing	49.0303 Commercial Fishing Operations
49.0304 Diver (Professional)	49.0304 Deep Water Diving and Life Support Systems
49.0306 Marine and Ship Repairer	49.0306 Marine Maintenance
43.0309 Marine Science/Merchant Marine Officer	49.0308 Sailors and Deckhands
49.0309 Marine Science/Merchant Marine Officer	28.0501 Maritime Science (Merchant Marine)
49.0399 Water Transportation Workers, Other	49.0301 Water Transportation, General
49.0399 Water Transportation Workers, Other	49.0302 Barge and Boat Operations
49.0399 Water Transportation Workers, Other	49.0305 Marina Operations
49.0399 Water Transportation Workers, Other	49.0399 Water Transportation, Other
49.99 Transportation and Materials Moving Workers, Other	49.99 Transportation and Material Moving, Other
49.9999 Transportation and Materials Moving Workers, Other	49.9999 Transportation and Material Moving, Other
50. VISUAL AND PERFORMING ARTS	50. VISUAL AND PERFORMING ARTS
50.01 Visual and Performing Arts	50.01 Visual and Performing Arts, General

50.0101 Visual and Performing Arts, General	50.0101 Visual and Performing Arts, General
50.02 Crafts, Folk Art and Artisanry	50.02 Crafts
50.0201 Crafts, Folk Art and Artisanry	50.0201 Crafts, General
50.0201 Crafts, Folk Art and Artisanry	50.0205 Glass
50.0201 Crafts, Folk Art and Artisanry	50.0201 Crafts, Other
50.03 Dance	50.03 Dance
50.0301 Dance	50.0301 Dance
50.04 Design and Applied Art	50.04 Design
50.0401 Design and Visual Communications	50.0401 Design, General
50.0402 Graphic Design, Commercial Art and Illustration	50.0402 Graphic Design
50.0402 Graphic Design, Commercial Art and Illustration	50.0403 Illustration Design
50.0402 Graphic Design, Commercial Art and Illustration	48.0203 Commercial Art
50.0404 Industrial Design	50.0404 Industrial Design
50.0406 Commercial Photography	48.0204 Commercial Photography
50.0407 Fashion Design and Illustration	19.0902 Fashion Design
50.0408 Interior Design	19.0604 Interior Design
50.0499 Design and Applied Arts, Other	50.0499 Design, Other
50.05 Dramatic/Theater Arts and Stagecraft	50.05 Dramatic Arts
50.0501 Drama/Theater Arts, General	50.0501 Dramatic Arts
50.0502 Technical Theater/Theater Design and Stagecraft	50.0405 Theater Design
50.0503 Acting and Directing	
50.0504 Playwriting and Screenwriting	
50.0505 Drama/Theater Literature, History and Criticism	
50.0599 Dramatic/Theater Arts and Stagecraft, Other	
50.06 Film/Video and Photographic Arts	50.06 Film Arts
50.0601 Film/Cinema Studies	50.0601 Film Arts, General
50.0602 Film-Video Making/Cinematography and Production	10.0102 Motion Picture Technology
50.0602 Film-Video Making/Cinematography and Production	50.0602 Cinematography/Film
50.0602 Film-Video Making/Cinematography and Production	50.0606 Video
50.0605 Photography	50.0605 Photography
50.0699 Film/Video and Photographic Arts, Other	50.0603 Film Animation
50.0699 Film/Video and Photographic Arts, Other	50.0604 Holography
50.0699 Film/Video and Photographic Arts, Other	50.0699 Film Arts, Other
50.07 Fine Arts and Art Studies	50.07 Fine Arts
50.0701 Art, General	50.0701 Fine Arts, General
50.0702 Fine/Studio Arts	
50.0703 Art History, Criticism and Conservation	50.0702 Art Conservation
50.0703 Art History, Criticism and Conservation	50.0703 Art History and Appreciation
50.0704 Arts Management	50.0704 Arts Management
50.0705 Drawing	50.0705 Drawing
50.0706 Intermedia	50.0706 Intermedia
50.0708 Painting	50.0708 Painting

50.0709 Sculpture	50.0709 Sculpture
50.0710 Printmaking	50.0710 Printmaking
50.0711 Ceramic Arts and Ceramics	50.0202 Ceramics
50.0712 Fiber,Textile and Weaving Arts	50.0204 Fiber/Textiles/Weaving
50.0714 Metal and Jewelry Arts	50.0206 Metal/Jewelry
50.0799 Fine Arts and Art Studies, Other	50.0799 Fine Arts, Other
50.09 Music	50.09 Music
50.0901 Music, General	50.0901 Music, General
50.0902 Music History and Literature	50.0902 Music History and Appreciation
50.0903 Music-General Performance	50.0903 Music Performance
50.0904 Music Theory and Composition	50.0904 Music Theory and Composition
50.0905 Musicology and Ethnomusicology	
50.0906 Music Conducting	
50.0907 Music-Piano and Organ Performance	
50.0908 Music-Voice and Choral/Opera Performance	
50.0909 Music Business Management and Merchandising	
50.0999 Music, Other	50.0999 Music, Other
50.99 Visual and Performing Arts, Other	50.99 Visual and Performing Arts, Other
50.9999 Visual and Performing Arts, Other	50.9999 Visual and Performing Arts, Other
51. HEALTH PROFESSIONS AND RELATED SCIENCES	17. ALLIED HEALTH
51. HEALTH PROFESSIONS AND RELATED SCIENCES	18. HEALTH SCIENCES
51.01 Chiropractic (D.C., D.C.M.)	18.03 Chiropractic
51.0101 Chiropractic (D.C., D.C.M.)	18.0301 Chiropractic
51.02 Communication Disorders Sciences and Services	18.01 Audiology and Speech Pathology
51.0201 Communication Disorders, General	
51.0202 Audiology/Hearing Sciences	18.0101 Audiology
51.0203 Speech-Language Pathology	18.0102 Speech Pathology
51.0204 Speech-Language Pathology and Audiology	18.0103 Speech-Language Pathology/Audiology
51.0205 Sign Language Interpreter	17.0410 Sign Language
51.0299 Communication Disorders Sciences and Services, Other	18.0199 Audiology and Speech Pathology, Other
51.03 Community Health Services	17.04 Mental Health/Human Services
51.0301 Community Health Liaison	17.0402 Community Health Work
51.0301 Community Health Liaison	17.0409 Population and Family Planning
51.0301 Community Health Liaison	17.0499 Mental Health/Human Services, Other
51.04 Dentistry (D.D.S., D.M.D.)	18.04 Dentistry
51.0401 Dentistry (D.D.S., D.M.D.)	18.0401 Dentistry, General
51.05 Dental Clinical Sciences/Graduate Dentistry (M.S., Ph.D.)	
51.0501 Dental Clinical Sciences/Graduate Dentistry (M.S., Ph.D.)	

51.06 Dental Services	17.01 Dental Services
51.0601 Dental Assistant	17.0101 Dental Assisting
51.0602 Dental Hygienist	17.0102 Dental Hygiene
51.0603 Dental Laboratory Technician	17.0103 Dental Laboratory Technology
51.0699 Dental Services, Other	17.0199 Dental Services, Other
51.07 Health and Medical Administrative Services	18.07 Health Services Administration
51.0701 Health Care and Services Administration	18.0701 Health Services Administration
51.0702 Hospital/Health Facilities Administration	18.0701 Health Services Administration
51.0703 Health Unit Coordinator/Ward Clerk	17.0513 Health Unit Coordinating
51.0704 Health Unit Manager/Ward Supervisor	17.0606 Health Unit Management
51.0705 Medical Office Management	17.0505 Medical Office Management
51.0706 Medical Records Administration	18.0703 Medical Records Administration
51.0707 Medical Records Technology/Technician	17.0506 Medical Records Technology
51.0708 Medical Transcription	
51.0799 Health and Medical Administrative Services, Other	17.0502 Central Supply Technology
51.0799 Health and Medical Administrative Services, Other	18.0702 Health Care Planning
51.0799 Health and Medical Administrative Services, Other	18.0799 Health Services Administration, Other
51.08 Health and Medical Assistants	
51.0801 Medical Assistant	17.0503 Medical Assisting
51.0802 Medical Laboratory Assistant	17.0305 Clinical Laboratory Assisting
51.0803 Occupational Therapy Assistant	17.0808 Occupational Therapy Assisting
51.0804 Ophthalmic Medical Assistant	
51.0805 Pharmacy Technician/Assistant	17.0507 Pharmacy Assisting
51.0806 Physical Therapy Assistant	17.0815 Physical Therapy Assisting
51.0807 Physician Assistant	17.0508 Physician Assisting
51.0808 Veterinarian Assistant/Animal Health Technician	17.0512 Veterinarian Assisting
51.0899 Health and Medical Assistants, Other	17.0510 Podiatric Assisting
51.0899 Health and Medical Assistants, Other	17.0812 Orthopedic Assisting
51.0899 Health and Medical Assistants, Other	17.0514 Chiropractic Assistant
51.09 Health and Medical Diagnostic and Treatment Services	17.02 Diagnostic and Treatment Services
51.0901 Cardiovascular Technology/Technician	17.0201 Cardiovascular Technology
51.0902 Electrocardiograph Technology/Technician	17.0203 Electrocardiograph Technology
51.0903 Electroencephalograph Technology/Technician	17.0204 Electroencephalograph Technology
51.0904 Emergency Medical Technology/Technician	17.0205 Emergency Medical Technology-Ambulance
51.0904 Emergency Medical Technology/Technician	17.0206 Emergency Medical Technology-Paramedic
51.0905 Nuclear Medical Technology/Technician	17.0207 Medical Radiation Dosimetry
51.0905 Nuclear Medical Technology/Technician	17.0208 Nuclear Medical Technology
51.0906 Perfusion Technology/Technician	
51.0907 Medical Radiologic Technology/Technician	17.0209 Radiologic (Medical) Technology
51.0908 Respiratory Therapy Technology/Technician	17.0210 Respiratory Therapy Technology
51.0908 Respiratory Therapy Technology/Technician	17.0818 Respiratory Therapy
51.0908 Respiratory Therapy Technology/Technician	17.0819 Respiratory Therapy Assistant
51.0909 Surgical/Operating Room Technician	17.0211 Surgical Technology
51.0910 Diagnostic Medical Sonography Technician	17.0212 Diagnostic Medical Sonography
51.0999 Health and Medical Diagnostic and Treatment Services, Other	17.0202 Dialysis Technology
51.0999 Health and Medical Diagnostic and Treatment Services, Other	17.0299 Diagnostic and Treatment Services, Other

51.10 Health and Medical Laboratory Technologies/Technicians	17.03 Medical Laboratory Technologies 18.09 Medical Laboratory
51.1001 Blood Bank Technology/Technician	17.0301 Blood Bank Technology
51.1002 Cytotechnologist	17.0306 Cytotechnology
51.1003 Hematology Technology/Technician	17.0307 Hematology Technology
51.1004 Medical Laboratory Technician	17.0302 Chemistry Technology
51.1004 Medical Laboratory Technician	17.0311 Microbiology Technology
51.1004 Medical Laboratory Technician	17.0309 Medical Laboratory Technology
51.1005 Medical Technology	17.0310 Medical Technology
51.1005 Medical Technology	18.0901 Medical Laboratory
51.1006 Optometric/Ophthalmic Laboratory Technician	
51.1099 Health and Medical Laboratory Technologies/Technicians, Other	17.0303 Clinical Animal Technology
51.1099 Health and Medical Laboratory Technologies/Technicians, Other	17.0308 Histologic Technology
51.1099 Health and Medical Laboratory Technologies/Technicians, Other	18.2201 Public Health Laboratory Science
51.1099 Health and Medical Laboratory Technologies/Technicians, Other	17.0399 Medical Laboratory Technologies, Other
51.11 Health and Medical Preparatory Programs	18.17 Pre-Dentistry
51.11 Health and Medical Preparatory Programs	18.18 Pre-Medicine
51.11 Health and Medical Preparatory Programs	18.19 Pre-Pharmacy
51.11 Health and Medical Preparatory Programs	18.20 Pre-Veterinary
51.1101 Pre-Dentistry Studies	18.1701 Pre-Dentistry
51.1102 Pre-Medicine Studies	18.1801 Pre-Medicine
51.1103 Pre-Pharmacy Studies	18.1901 Pre-Pharmacy
51.1104 Pre-Veterinary Studies	18.2001 Pre-Veterinary
51.1199 Health and Medical Preparatory Programs, Other	
51.12 Medicine	18.10 Medicine
51.1201 Medicine (M.D.)	18.1001 Medicine, General
51.13 Medical Basic Sciences	18.02 Basic Clinical Health Sciences
51.1301 Medical Anatomy	18.0201 Clinical Anatomy
51.1302 Medical Biochemistry	18.0202 Clinical Biochemistry
51.1303 Medical Biomathemetics and Biometrics	
51.1304 Medical Biophysics/Physics	
51.1305 Medical Cell Biology	
51.1306 Medical Genetics	
51.1307 Medical Immunology	
51.1308 Medical Microbiology	18.0203 Clinical Microbiology
51.1309 Medical Molecular Biology	
51.1310 Medical Neurobiology	
51.1311 Medical Nutrition	
51.1312 Medical Pathology	18.0204 Clinical Pathology
51.1313 Medical Physiology	18.0205 Clinical Physiology
51.1314 Medical Toxicclogy	18.0206 Clinical Toxicology
51.1399 Medical Basic Sciences, Other	18.0299 Basic Clinical Health Sciences, Other
51.14 Medical Clinical Sciences (M.S., Ph.D.)	
51.1401 Medical Clinical Sciences (M.S., Ph.D.)	
51.15 Mental Health Services	17.04 Mental Health/Human Services

51.1501 Alcohol/Drug Abuse Counseling	17.0401 Alcohol/Drug Abuse Specialty
51.1502 Psychiatric/Mental Health Services Technician	17.0405 Mental Health/Human Services Assisting
51.1502 Psychiatric/Mental Health Services Technician	17.0406 Mental Health/Human Services Technology
51.1503 Clinical and Medical Social Work	44.0702 Medical Social Work
51.1599 Mental Health Services, Other	17.0408 Therapeutic Child Care Work
51.1599 Mental Health Services, Other	17.0499 Mental Health/Human Services, Other
51.16 Nursing	17.06 Nursing-Related Services
51.16 Nursing	18.11 Nursing
51.1601 Nursing (R.N. Training)	18.1101 Nursing, General
51.1602 Nursing Administration (Post-R.N.)	18.1105 Nursing Administration
51.1603 Nursing, Adult Health (Post-R.N.)	
51.1604 Nursing Anesthetist (Post-R.N.)	18.1102 Anesthetist
51.1605 Nursing, Family Practice (Post-R.N.)	
51.1606 Nursing, Maternal/Child Health (Post-R.N.)	18.1103 Maternal/Child Health
51.1607 Nursing Midwifery (Post-R.N.)	
51.1608 Nursing Science (Post-R.N.)	
51.1609 Nursing, Pediatric (Post-R.N.)	
51.1610 Nursing, Psychiatric/Mental Health (Post-R.N.)	18.1106 Psychiatric/Mental Health
51.1611 Nursing, Public Health (Post-R.N.)	18.1107 Public Health (Nursing)
51.1612 Nursing, Surgical (Post-R.N.)	18.1104 Medical Surgical
51.1613 Practical Nurse (L.P.N. Training)	17.0605 Practical Nursing
51.1614 Nurse Assistant/Aide	17.0602 Nursing Assisting
51.1615 Home Health Aide	17.0404 Home Health Aide
51.1699 Nursing, Other	17.0699 Nursing-Related Services, Other
51.1699 Nursing, Other	18.1199 Nursing, Other
51.17 Optometry (O.D.)	18.12 Optometry
51.1701 Optometry (O.D.)	18.1201 Optometry
51.18 Ophthalmic/Optometric Services	17.07 Ophthalmic Services
51.1801 Opticianry/Dispensing Optician	17.0701 Ophthalmic Dispensing
51.1802 Optical Technician/Assistant	17.0705 Ophthalmic Technology
51.1803 Ophthalmic Medical Technologist	
51.1804 Orthoptics	
51.1899 Ophthalmic/Optometric Services, Other	17.0799 Ophthalmic Services, Other
51.19 Osteopathic Medicine (D.O.)	18.13 Osteopathic Medicine
51.1901 Osteopathic Medicine (D.O.)	18.1301 Osteopathic Medicine
51.20 Pharmacy	18.14 Pharmacy
51.2001 Pharmacy (B.Phar., Pharm.D.)	18.1401 Pharmacy
51.2002 Pharmacy Administration and Pharmaceutics	
51.2003 Medical Pharmacology and Pharmaceutical Sciences	
51.2099 Pharmacy, Other	
51.21 Podiatry (D.P.M., D.P., Pod.D.)	18.15 Podiatry
51.2101 Podiatry (D.P.M., D.P., Pod.D.)	18.1501 Podiatry

51.22 Public Health	18.22 Public Health
51.2201 Public Health, General	18.2204 Public Health Practice and Management
51.2202 Environmental Health	
51.2203 Epidemiology	18.2202 Epidemiology
51.2204 Health and Medical Biostatistics	
51.2205 Health Physics/Radiologic Health	
51.2206 Occupational Health and Industrial Hygiene	
51.2207 Public Health Education and Promotion	18.2203 Public Health Education
51.2299 Public Health, Other	18.2299 Public Health, Other
51.23 Rehabilitation/Therapeutic Services	17.08 Rehabilitation Services
51.2301 Art Therapy	17.0801 Art Therapy
51.2302 Dance Therapy	17.0803 Dance Therapy
51.2303 Hypnotherapy	
51.2304 Movement Therapy	
51.2305 Music Therapy	17.0806 Music Therapy
51.2306 Occupational Therapy	17.0807 Occupational Therapy
51.2307 Orthotics/Prosthetics	17.0811 Orthotics/Prosthetics
51.2308 Physical Therapy	17.0813 Physical Therapy
51.2309 Recreational Therapy	17.0816 Recreational Therapy
51.2310 Vocational Rehabilitation Counseling	17.0802 Corrective Therapy
51.2399 Rehabilitation/Therapeutic Services, Other	17.0899 Rehabilitation Services, Other
51.24 Veterinary Medicine (D.V.M.)	18.24 Veterinary Medicine
51.2401 Veterinary Medicine (D.V.M.)	18.2401 Veterinary Medicine
51.25 Veterinary Clinical Sciences (M.S., Ph.D.)	
51.2501 Veterinary Clinical Sciences (M.S., Ph.D.)	
51.26 Miscellaneous Health Aides	
51.2601 Health Aides	
51.2601 Health Aides	17.0304 Clinical Laboratory Aide
51.2601 Health Aides	17.0601 Geriatric Aide
51.2601 Health Aides	17.0809 Occupational Therapy Aide
51.2601 Health Aides	17.0814 Physical Therapy Aide
51.2601 Health Aides	17.0817 Recreational Therapy Assisting
51.2601 Health Aides	17.0820 Speech/Hearing Therapy Aide
51.2601 Health Aides	17.0822 Recreational Therapy Aide
51.27 Miscellaneous Health Professions	
51.2701 Acupuncture and Oriental Medicine	
51.2702 Medical Dietician	
51.2703 Medical Illustration	17.0504 Medical Illustrating
51.2704 Naturopathic Medicine	
51.2705 Psychoanalysis	
51.99 Health Professions and Related Sciences, Other	17.99 Allied Health, Other
51.99 Health Professions and Related Sciences, Other	18.99 Health Sciences, Other

51.9999 Health Professions and Related Sciences, Other	**17.9999 Allied Health, Other**
51.9999 Health Professions and Related Sciences, Other	**18.9999 Health Sciences, Other**
52. BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES	06. BUSINESS AND MANAGEMENT
52. BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES	07. BUSINESS (ADMINISTRATIVE SUPPORT), Other
52.01 Business	06.01 Business and Management, General
52.0101 Business, General	06.0101 Business and Management, General
52.02 Business Administration and Management	06.04 Business Administration and Management
52.02 Business Administration and Management	06.20 Trade and Industrial Supervision and Management
52.02 Business Administration and Management	07.04 Office Supervision and Management
52.0201 Business Administration and Management, General	06.0401 Business Administration and Management, General
52.0202 Purchasing, Procurement and Contracts Management	06.0402 Contract Management and Procurement/ Purchasing
52.0203 Logistics and Materials Management	
52.0204 Office Supervision and Management	07.0401 Office Supervision and Management
52.0205 Operations Management and Supervision	06.0403 Product Management
52.0205 Operations Management and Supervision	06.2001 Trade and Industrial Supervision and Management
52.0206 Non-Profit and Public Management	
52.0299 Business Administration and Management, Other	06.0499 Business Administration and Management, Other
52.03 Accounting	06.02 Accounting
52.03 Accounting	07.01 Accounting, Bookkeeping and Related Programs
52.0301 Accounting	06.0201 Accounting
52.0302 Accounting Technician	07.0101 Accounting, Bookkeeping, and Related Programs, General
52.0302 Accounting Technician	07.0102 Accounting and Computing
52.0302 Accounting Technician	07.0103 Bookkeeping
52.0302 Accounting Technician	07.0104 Machine Billing, Bookkeeping, and Computing
52.0399 Accounting, Other	07.0199 Accounting, Bookkeeping, and Related Programs, Other
52.04 Administrative and Secretarial Services	07.06 Secretarial and Related Programs
52.04 Administrative and Secretarial Services	07.07 Typing, General Office and Related Programs
52.04 Administrative and Secretarial Services	07.08 Word Processing
52.0401 Administrative Assistant/Secretarial Science	07.0601 Secretarial and Related Programs, General
52.0401 Administrative Assistant/Secretarial Science	07.0606 Secretarial
52.0401 Administrative Assistant/Secretarial Science	07.0607 Stenographic
52.0401 Administrative Assistant/Secretarial Science	07.0801 Word Processing
52.0402 Executive Assistant/Secretary	07.0603 Executive Secretarial
52.0403 Legal Administrative Assistant/Secretary	07.0604 Legal Secretarial
52.0404 Medical Administrative Assistant/Secretary	07.0605 Medical Secretarial
52.0405 Court Reporter	07.0602 Court Reporting
52.0406 Receptionist	07.0707 Receptionist and Communication Systems
52.0407 Information Processing/Date Entry Technician	07.0303 Business Data Entry Equipment Operation
52.0408 General Office/Clerical and Typing Services	07.0701 Typing, General Office and Related
52.0408 General Office/Clerical and Typing Services	07.0702 Clerk-Typist
52.0408 General Office/Clerical and Typing Services	07.0703 Correspondence Clerk
52.0408 General Office/Clerical and Typing Services	07.0704 Duplicating Machine Operation

52.0408 General Office/Clerical and Typing Services	**07.0705 General Office Clerk**
52.0499 Administrative/Secretarial Services, Other	**07.0699 Secretarial and Related Programs, Other**
52.0499 Administrative/Secretarial Services, Other	**07.0708 Shipping, Receiving and Stock Clerk**
52.0499 Administrative/Secretarial Services, Other	**07.0709 Traffic Rate and Transportation Clerk**
52.0499 Administrative/Secretarial Services, Other	**07.0799 Typing, General Office and Related Program, Other**
52.05 Business Communications	
52.0501 Business Communications	
52.06 Business/Managerial Economics	06.05 Business Economics
52.0601 Business/Managerial Economics	06.0501 Business Economics
52.07 Enterprise Management and Operation	06.18 Small Business Management and Ownership
52.0701 Enterprise Management and Operation, General	06.1801 Small Business Management and Ownership
52.0702 Franchise Operation	
52.0799 Enterprise Management and Operation, Other	
52.08 Financial Management and Services	06.03 Banking and Finance
52.08 Financial Management and Services	06.08 Insurance and Risk Management
52.08 Financial Management and Services	06.10 Investments and Securities
52.08 Financial Management and Services	07.02 Banking and Related Financial Programs
52.0801 Finance, General	
52.0802 Actuarial Science	27.0201 Actuarial Sciences
52.0803 Banking and Financial Support Services	07.0201 Banking and Related Financial Programs, General
52.0803 Banking and Financial Support Services	07.0203 Insurance Clerk
52.0803 Banking and Financial Support Services	07.0205 Teller
52.0803 Banking and Financial Support Services	07.0299 Banking and Related Financial Programs, Other
52.0804 Financial Planning	
52.0805 Insurance and Risk Management	06.0801 Insurance and Risk Management
52.0806 International Finance	
52.0807 Investments and Securities	06.1001 Investments and Securities
52.0808 Public Finance	
52.0899 Financial Management and Services, Other	
52.09 Hospitality Services Management	06.07 Institutional Management
52.0901 Hospitality Administration/Management	06.0702 Recreational Enterprises Management
52.0901 Hospitality Administration/Management	06.0703 Resort Management
52.0902 Hotel/Motel and Restaurant Management	06.0701 Hotel/Motel Management
52.0902 Hotel/Motel and Restaurant Management	06.0704 Restaurant Management
52.0903 Travel-Tourism Management	06.0705 Transportation Management
52.0999 Hospitality Services Management, Other	06.0799 Institutional Management, Other
52.10 Human Resources Management	06.06 Human Resource Development
52.10 Human Resources Management	06.11 Labor/Industrial Relations
52.10 Human Resources Management	06.15 Organizational Behavior
52.10 Human Resources Management	06.16 Personnel Management
52.10 Human Resources Management	07.05 Personnel and Training Programs
52.1001 Human Resources Management	06.0601 Human Resources Development

52.1001 Human Resources Management	06.1601 Personnel Management
52.1001 Human Resources Management	07.0501 Personnel and Training Programs, General
52.1001 Human Resources Management	07.0502 Training Assisting
52.1001 Human Resources Management	07.0503 Personnel Assisting
52.1002 Labor/Personnel Relations and Studies	06.1101 Labor/Industrial Relations
52.1003 Organizational Behavior Studies	06.1501 Organizational Behavior
52.1099 Human Resources Management, Other	07.0599 Personnel and Training Programs, Other
52.11 International Business	06.09 International Business Management
52.1101 International Business	06.0901 International Business Management
52.12 Business Information Systems	06.12 Management Information Systems
52.12 Business Information Systems	06.21 Computer Installation Management
52.12 Business Information Systems	07.03 Business Data Processing and Related Programs
52.1201 Management Information Systems and Business Data Processing, General	07.0301 Business Data Processing and Related Programs, General
52.1201 Management Information Systems and Business Data Processing, General	06.2101 Computer Installation Management
52.1201 Management Information Systems and Business Data Processing, General	06.1201 Management Information Systems
52.1202 Business Computer Programming/Programmer	07.0305 Business Data Programming
52.1203 Business Systems Analysis and Design	07.0306 Business Systems Analysis
52.1204 Business Systems Networking and Telecommunications	
52.1205 Business Computer Facilities Operator	07.0302 Business Computer and Console Operation
52.1205 Business Computer Facilities Operator	07.0304 Business Data Peripheral Equipment Operation
52.1299 Business Information and Data Processing Services, Other	07.0399 Business Data Processing and Related Programs, Other
52.13 Business Quantitative Methods and Management Science	06.13 Management Science
52.1301 Management Science	06.1303 Management Science, General
52.1302 Business Statistics	
52.1399 Management Science, Other	06.1399 Management Science, Other
52.14 Marketing Management and Research	06.14 Marketing Management and Research
52.1401 Business Marketing and Marketing Management	06.1401 Marketing Management
52.1402 Marketing Research	06.1402 Marketing Research
52.1403 International Business Marketing	08.0703 International Marketing
52.1499 Marketing Management and Research, Other	06.1499 Marketing Management and Research, Other
52.15 Real Estate	06.17 Real Estate
52.1501 Real Estate	06.1701 Real Estate
52.16 Taxation	06.19 Taxation
52.1601 Taxation	06.1901 Taxation
52.99 Business Management and Administrative Services, Other	06.99 Business and Management, Other
52.99 Business Management and Administrative Services, Other	07.99 Business (Administrative Support), Other

52.9999 Business Management and Administrative Services, Other	06.9999 Business and Management, Other
52.9999 Business Management and Administrative Services, Other	07.9999 Business (Administrative Support), Other

CHAPTER II

Consumer and Homemaking Education Programs

20.01 Consumer and Homemaking Education	20.01 Consumer and Homemaking Education
20.0101 Comprehensive Consumer and Homemaking Education	20.0101 Comprehensive Consumer and Homemaking Education
20.0102 Child Development, Care, and Guidance	20.0102 Child Development, Care, and Guidance
20.0103 Clothing and Textiles	20.0103 Clothing and Textiles
20.0104 Consumer Education	20.0104 Consumer Education
20.0105 Exploratory Homemaking	20.0105 Exploratory Homemaking
20.0106 Family/Individual Health	20.0106 Family/Individual Health
20.0107 Family Living and Parenthood	20.0107 Family Living and Parenthood
20.0108 Food and Nutrition	20.0108 Food and Nutrition
20.0109 Home Management	20.0109 Home Management
20.0110 Housing, Home Furnishings and Equipment	20.0110 Housing, Home Furnishings, and Equipment
20.0199 Consumer and Homemaking Education, Other	20.0199 Consumer and Homemaking Education, Other

CHAPTER III

Technology Education/Industrial Arts Programs

21. TECHNOLOGY EDUCATION/INDUSTRIAL ARTS	21. INDUSTRIAL ARTS
21.01 Technology Education/Industrial Arts	21.01 Industrial Arts
21.0101 Technology Education/Industrial Arts	21.0101 Industrial Arts, General
21.0101 Technology Education/Industrial Arts	21.0102 Construction
21.0101 Technology Education/Industrial Arts	21.0103 Drafting and Design
21.0101 Technology Education/Industrial Arts	21.0104 Electricity/Electronics
21.0101 Technology Education/Industrial Arts	21.0105 Energy, Power, and Transportation
21.0101 Technology Education/Industrial Arts	21.0106 Graphic Arts
21.0101 Technology Education/Industrial Arts	21.0107 Manufacturing/Materials Processing
21.0101 Technology Education/Industrial Arts	21.0199 Industrial Arts, Other

CHAPTER IV

Reserve Officers' Training Corp Programs

28. RESERVE OFFICERS TRAINING CORPS (R.O.T.C)	28. MILITARY SCIENCES
28.01 Air Force R.O.T.C.	28.01 Aerospace Science (Air Force)
28.0101 Air Force R.O.T.C/Air Science	28.0101 Aerospace Science (Air Force)

	28.02 Coast Guard Science
28.0201 Coast Guard Science	
28.03 Army R.O.T.C.	28.03 Military Science (Army)
28.0301 Army R.O.T.C/Military Science	28.0301 Military Science (Army)
28.04 Navy/Marine Corps R.O.T.C	28.04 Naval Science (Navy, Marines)
28.0401 Navy/Marine Corps R.O.T.C/Naval Science	28.0401 Naval Science (Navy, Marines)
	28.05 Maritime Science (Merchant Marine)
	28.99 Military Sciences, Other
	28.9999 Military Sciences, Other

CHAPTER V

Personal Improvement and Leisure Programs

32. BASIC SKILLS	32. BASIC SKILLS
32.01 Basic Skills	32.01 Basic Skills
32.0101 Basic Skills, General	32.0101 Basic Skills, General
32.0104 Computational Skills	32.0104 Computational Skills
32.0105 Job Seeking/Changing Skills	32.0105 Job Seeking/Changing Skills
32.0107 Career Exploration/Awareness Skills	32.0107 Career Exploration
32.0108 Reading, Literacy and Communications Skills	32.0102 Academic and Intellectual Skills
32.0108 Reading, Literacy and Communications Skills	32.0103 Communication Skills
32.0106 Motor Skills	
32.0199 Basic Skills, Other	32.0199 Basic Skills, Other

33. CITIZENSHIP ACTIVITIES	33. CITIZENSHIP/CIVIC ACTIVITIES
33.01 Citizenship Activities	33.01 Citizenship/Civic Activities
33.0101 Citizenship Activities, General	33.0101 Citizenship/Civic Activities, General
33.0102 American Citizenship Education	33.0102 American Citizenship
33.0103 Community Awareness	33.0103 Civic Appreciation
33.0104 Community Involvement	33.0104 Civic Participation
33.0199 Citizenship Activities, Other	33.0199 Citizenship/Civic Activities, Other

34. HEALTH-RELATED KNOWLEDGE AND SKILLS	34. HEALTH-RELATED ACTIVITIES
34.01 Health-Related Knowledge and Skills	34.01 Health-Related Activities
34.0101 Health-Related Activities, General	
34.0102 Birthing and Parenting Knowledge and Skills	34.0102 Birth-Related Health Practices
34.0103 Personal Health Improvement and Maintenance	34.0103 Health Enhancement Practices
34.0104 Addiction Prevention and Treatment	34.0104 Health Treatment/Prevention Practices
34.0199 Health-Related Activities, Other	34.0199 Health-Related Activities, Other
35. INTERPERSONAL AND SOCIAL SKILLS	35. INTERPERSONAL SKILLS
35.01 Interpersonal and Social Skills	35.01 Interpersonal Skills
35.0101 Interpersonal and Social Skills, General	35.0101 Interpersonal Skills, General
35.0102 Interpersonal Relationships Skills	35.0102 Building Human Relationships
35.0103 Business and Social Skills	35.0103 Perception of Other
35.0199 Interpersonal and Social Skills, Other	35.0104 Social Role Engineering
35.0199 Interpersonal and Social Skills, Other	35.0199 Interpersonal Skills, Other
36. LEISURE AND RECREATIONAL ACTIVITIES	36. LEISURE AND RECREATIONAL ACTIVITIES
36.01 Leisure and Recreational Activities	36.01 Leisure and Recreational Activities
36.0101 Leisure and Recreational Activities, General	36.0101 Leisure and Recreational Activities, General
36.0102 Handicrafts and Model-Making	36.0102 Crafts (Leisure and Recreational)
36.0103 Board, Card and Role-Playing Games	36.0103 Games
36.0104 Hobbies	
36.0105 Home Maintenance and Improvement	36.0105 Housing/Home Maintenance
36.0106 Nature Appreciation	36.0106 Nature Appreciation
36.0107 Pet Ownership and Care	36.0107 Pet Care
36.0108 Sports and Exercise	36.0108 Sports/Physical Education
36.0109 Travel and Exploration	36.0109 Travel
36.0110 Art	
36.0111 Collecting	
36.0112 Cooking and Other Domestic Skills	
36.0113 Computer Games and Programming Skills	
36.0114 Dancing	
36.0115 Music	
36.0116 Reading	
36.0117 Theater	
36.0118 Writing	
36.0199 Leisure and Recreational Activities, Other	36.0199 Leisure and Recreational Activities, Other
37. PERSONAL AWARENESS AND SELF-IMPROVEMENT	37. PERSONAL AWARENESS
37.01 Personal Awareness and Self-Improvement	37.01 Personal Awareness
37.0101 Self-Awareness and Personal Assessment	37.0101 Personal Awareness, General
37.0102 Stress Management and Coping Skills	37.0102 Coping Skills
37.0103 Personal Decision-Making Skills	37.0103 Personal Decisionmaking
37.0104 Self Esteem and Values Clarification	37.0104 Self-Perception

37.0104 Self Esteem and Values Clarification	37.0105 Values, Attitudes and Beliefs
37.0199 Personal Awareness and Self-Improvement, Other	37.0199 Personal Awareness, Other

CHAPTER VI

Dental, Medical and Veterinary Residency Programs

51.28 Dental Residency Programs ....

51.2801 Dental/Oral Surgery Specialty	18.0404 Oral/Maxial Facial Surgery
51.2802 Dental Public Health Specialty	18.0402 Dental Public Health
51.2803 Endodontics Specialty	18.0403 Endodontics
51.2804 Oral Pathology Specialty	18.0405 Oral Pathology
51.2805 Orthodontics Specialty	18.0406 Orthodontics
51.2806 Pedodontics Specialty	18.0407 Pedodontics
51.2807 Periodontics Specialty	18.0408 Periodontics
51.2808 Prosthodontics Specialty	18.0409 Prosthodontics
51.2899 Dental Residency Programs, Other	18.0499 Dentistry, Other

51.29 Medical Residency Programs ....

51.2901 Aerospace Medicine Residency	
51.2902 Allergies and Immunology Residency	18.1002 Allergies and Entomology
51.2903 Anesthesiology Residency	18.1003 Anesthesiology
51.2904 Blood Banking Residency	
51.2905 Cardiology Residency	
51.2906 Chemical Pathology Residency	
51.2907 Child/Pediatric Neurology Residency	
51.2908 Child Psychiatry Residency	
51.2909 Colon and Rectal Surgery Residency	18.1004 Colon and Rectal Surgery
51.2910 Critical Care Anesthesiology Residency	
51.2911 Critical Care Medicine Residency	
51.2912 Critical Care Surgery Residency	
51.2913 Dermatology Residency	18.1005 Dermatology
51.2914 Dermatopathology Residency	
51.2915 Diagnostic Radiology Residency	
51.2916 Emergency Medicine Residency	18.1006 Emergency Medicine
51.2917 Endocrinology and Metabolism Residency	
51.2918 Family Medicine Residency	18.1007 Family Practice
51.2919 Forensic Pathology Residency	
51.2920 Gastroenterology Residency	
51.2921 General Surgery Residency	18.1026 Surgery
51.2922 Geriatric Medicine Residency	18.1008 Geriatrics
51.2923 Hand Surgery Residency	
51.2924 Hematology Residency	18.1029 Hematology
51.2925 Hematological Pathology Residency	
51.2926 Immunopathology Residency	
51.2927 Infectious Disease Residency	
51.2928 Internal Medicine Residency	18.1010 Internal Medicine
51.2929 Laboratory Medicine Residency	
51.2930 Musculoskeletal Oncology Residency	
51.2931 Neonatal-Perinatal Medicine Residency	
51.2932 Nephrology Residency	
51.2933 Neurological Surgery/Neurosurgery Residency	18.1011 Neurological Surgery
51.2934 Neurology Residency	18.1024 Neurology
51.2935 Neuropathology Residency	
51.2936 Nuclear Medicine Residency	18.1012 Nuclear Medicine

51.2937 Nuclear Radiology Residency	
51.2938 Obstetrics and Gynecology Residency	18.1013 Obstetrics and Gynecology
51.2939 Occupational Medicine Residency	
51.2940 Oncology Residency	
51.2941 Ophthalmology Residency	18.1014 Ophthalmology
51.2942 Orthopedics/Orthopedic Surgery Residency	18.1016 Orthopedic
51.2943 Otolaryngology Residency	18.1017 Otorhinolaryngology/Otolaryngology
51.2944 Pathology Residency	18.1018 Pathology
51.2945 Pediatric Cardiology Residency	
51.2946 Pediatric Endocrinology Residency	
51.2947 Pediatric Hemato-Oncology Residency	
51.2948 Pediatric Nephrology Residency	
51.2949 Pediatric Orthopedics Residency	
51.2950 Pediatric Surgery Residency	
51.2951 Pediatrics Residency	18.1019 Pediatrics
51.2952 Physical and Rehabilitation Medicine Residency	18.1020 Physical Medicine and Rehabilitation
51.2953 Plastic Surgery Residency	18.1021 Plastic Surgery
51.2954 Preventive Medicine Residency	18.1022 Preventive Medicine
51.2955 Psychiatry Residency	18.1023 Psychiatry
51.2956 Public Health Medicine Residency	
51.2957 Pulmonary Disease Residency	
51.2958 Radiation Oncology Residency	
51.2959 Radioisotopic Pathology Residency	
51.2960 Rheumatology Residency	
51.2961 Sports Medicine Residency	18.1030 Sports Medicine
51.2962 Thoracic Surgery Residency	18.1027 Thoracic Surgery
51.2963 Urology Residency	18.1028 Urology
51.2964 Vascular Surgery Residency	
51.2999 Medicinal Residency Programs, Other	18.1099 Medicine, Other

51.30 Veterinary Residency Programs ....

51.3001 Veterinary Anesthesiology
51.3002 Veterinary Dentistry
51.3003 Veterinary Dermatology
51.3004 Veterinary Emergency and Critical Care Medicine
51.3005 Veterinary Internal Medicine
51.3006 Laboratory Animal Medicine
51.3007 Veterinary Microbiology
51.3008 Veterinary Nutrition
51.3009 Veterinary Ophthalmology
51.3010 Veterinary Pathology
51.3011 Veterinary Practice
51.3012 Veterinary Preventive Medicine
51.3013 Veterinary Radiology
51.3014 Veterinary Surgery
51.3015 Theriogenology
51.3016 Veterinary Toxicology
51.3017 Zoological Medicine
51.3099 Veterinary Residency Programs, Other

CHAPTER VII

High School/Secondary Diploma and Certificate Programs

53. HIGH SCHOOL/SECONDARY DIPLOMAS AND CERTIFICATES

53.01 High School/Secondary Diplomas ....

53.0101 Regular High School Diploma
53.0102 College Preparatory High School Diploma
53.0103 Vocational High School Diploma
53.0104 Honors/Regents High School Diploma
53.0199 High School/Secondary Diplomas, Other

53.02 High School/Secondary Certificates ....

53.0201 High School Equivalence Certificate
53.0202 High School Certificate of Competence
53.0203 Certificate of IEP Completion
53.0299 High School/Secondary Certificates, Other

APPENDIX B

CROSSWALK CHART FROM 1985 CIP CODE NUMBERS TO 1990 CIP CODE NUMBERS AND TITLES BY 1985 NUMERICAL SEQUENCE

NOTE: WHEREVER THE 1985 6-DIGIT CIP CODE IS MISSING WITHIN CHAPTER I, REFER TO THE NUMERICAL LISTS IN CHAPTERS II-VI (PP. 292-294) TO FIND THE SKIPPED CODES.

CHAPTER ONE

Academic and Occupationally Specific Programs

1985 CIP CODE NUMBER	1990 CIP CODE NUMBER	1990 INSTRUCTIONAL PROGRAM TITLE
01.0101	01.0101	Agricultural Business and Management, General
01.0102	01.0102	Agricultural Business/Agribusiness Operations
01.0103	01.0103	Agricultural Economics
01.0104	01.0104	Farm and Ranch Management
01.0199	01.0199	Agricultural Business and Management, Other
01.0201	01.0201	Agricultural Mechanization, General
01.0202	01.0299	Agricultural Mechanization, Other
01.0203	01.0201	Agricultural Mechanization, General
01.0204	01.0204	Agricultural Power Machinery Operator
01.0205	01.0201	Agricultural Mechanization, General
01.0206	01.0299	Agricultural Mechanization, Other
01.0299	01.0299	Agricultural Mechanization, Other
01.0301	01.0301	Agricultural Production Workers and Managers, General
01.0302	01.0302	Agricultural Animal Husbandry and Production Management
01.0303	01.0303	Aquaculture Operations and Production Management
01.0304	01.0304	Crop Production Operations and Management
01.0305	01.0399	Agricultural Production Workers and Managers, Other
01.0399	01.0399	Agricultural Production Workers and Managers, Other
01.0401	01.0401	Agricultural and Food Products Processing Operations and Management
01.0402	01.0401	Agricultural and Food Products Processing Operations and Management
01.0499	01.0401	Agricultural and Food Products Processing Operations and Management
01.0501	01.0501	Agricultural Supplies Retailing and Wholesaling
01.0502	01.0501	Agricultural Supplies Retailing and Wholesaling
01.0503	01.0501	Agricultural Supplies Retailing and Wholesaling
01.0504	01.0599	Agricultural Supplies and Related Services, Other
01.0505	01.0505	Animal Trainer
01.0506	01.0599	Agricultural Supplies and Related Services, Other
01.0507	01.0507	Equestrian/Equine Studies, Horse Management and Training
01.0599	01.0599	Agricultural Supplies and Related Services, Other
01.0601	01.0601	Horticulture Services Operations and Management, General
01.0602	01.0699	Horticulture Services Operations and Management, Other
01.0603	01.0603	Ornamental Horticulture Operations and Management
01.0604	01.0604	Greenhouse Operations and Management
01.0605	01.0605	Landscaping Operations and Management
01.0606	01.0606	Nursery Operations and Management
01.0607	01.0607	Turf Management
01.0699	01.0699	Horticulture Services Operations and Management, Other
01.0701	01.0701	International Agriculture
01.9999	01.9999	Agricultural Business and Production, Other
02.0101	02.0101	Agriculture/Agricultural Sciences, General
02.0201	02.0201	Animal Sciences, General

02.0202	02.0202	Agricultural Animal Breeding and Genetics
02.0203	02.0203	Agricultural Animal Health
02.0204	02.0204	Agricultural Animal Nutrition
02.0206	02.0206	Dairy Science
02.0208	02.0201	Animal Sciences, General
02.0209	02.0209	Poultry Science
02.0299	02.0299	Animal Sciences, Other
02.0301	02.0301	Food Sciences and Technology, General
02.0401	02.0401	Plant Sciences, General
02.0402	02.0402	Agronomy and Crop Science
02.0403	02.0403	Horticulture Science
02.0408	02.0408	Plant Protection (Pest Management)
02.0409	02.0409	Range Science and Management
02.0499	02.0499	Plant Sciences, Other
02.0501	02.0501	Soil Sciences
02.9999	02.9999	Agriculture/Agricultural Sciences, Other
03.0101	03.0101	Natural Resources Conservation, General
03.0201	03.0201	Natural Resources Management and Policy
03.0202	03.0101	Natural Resources Conservation, General
03.0203	03.0203	Natural Resources Law Enforcement and Protective Services
03.0299	03.0299	Natural Resources Management and Protective Services, Other
03.0301	03.0301	Fishing and Fisheries Sciences and Management
03.0401	03.0401	Forest Harvesting and Production Technology/Technician
03.0402	03.0401	Forest Harvesting and Production Technology/Technician
03.0403	03.0404	Forest Products Technology/Technician
03.0404	03.0404	Forest Products Technology/Technician
03.0405	03.0405	Logging/Timber Harvesting
03.0499	03.0499	Forest Production and Processing, Other
03.0501	03.0501	Forestry, General
03.0502	03.0502	Forestry Sciences
03.0504	03.0599	Forestry and Related Sciences, Other
03.0506	03.0506	Forest Management
03.0509	03.0509	Wood Science and Pulp/Paper Technology
03.0599	03.0599	Forestry and Related Sciences, Other
03.0601	03.0601	Wildlife and Wildlands Management
03.9999	03.9999	Conservation and Renewable Natural Resources, Other
04.0101	04.0201	Architecture
04.0201	04.0201	Architecture
04.0301	04.0301	City/Urban, Community and Regional Planning
04.0401	04.0401	Architectural Environmental Design
04.0501	04.0501	Interior Architecture
04.0601	04.0601	Landscape Architecture
04.0701	04.0701	Architectural Urban Design and Planning
04.0801	04.9999	Architecture and Related Programs, Other
04.9999	04.9999	Architecture and Related Programs, Other
05.0101	05.0101	African Studies
05.0102	05.0102	American Studies/Civilization
05.0103	05.0103	Asian Studies
05.0104	05.0104	East Asian Studies
05.0105	05.0105	Eastern European Area Studies
05.0106	05.0106	European Studies
05.0107	05.0107	Latin American Studies
05.0108	05.0108	Middle Eastern Studies
05.0109	05.0109	Pacific Area Studies
05.0110	05.0110	Russian and Slavic Area Studies
05.0111	05.0111	Scandinavian Area Studies
05.0112	05.0112	South Asian Studies
05.0113	05.0113	Southeast Asian Studies
05.0114	05.0114	Western European Studies
05.0115	05.0115	Canadian Studies
05.0199	05.0199	Area Studies, Other
05.0201	05.0201	Afro-American (Black) Studies

05.0202	05.0202	American Indian/Native American Studies
05.0203	05.0203	Hispanic American Studies
05.0204	05.0204	Islamic Studies
05.0205	05.0205	Jewish/Judaic Studies
05.0299	05.0299	Ethnic and Cultural Studies, Other
05.9999	05.9999	Area, Ethnic and Cultural Studies, Other
06.0101	52.0101	Business, General
06.0201	52.0301	Accounting
06.0301	52.0801	Finance, General
06.0401	52.0201	Business Administration and Management, General
06.0402	52.0202	Purchasing, Procurement and Contracts Management
06.0403	52.0205	Operations Management and Supervision
06.0499	52.0299	Business Administration and Management, Other
06.0501	52.0601	Business/Managerial Economics
06.0601	52.1001	Human Resources Management
06.0701	52.0902	Hotel/Motel and Restaurant Management
06.0702	52.0901	Hospitality/Administration Management
06.0703	52.0901	Hospitality/Administration Management
06.0704	12.0504	Food and Beverage/Restaurant Operations Manager
06.0704	52.0902	Hotel/Motel and Restaurant Management
06.0705	52.0903	Travel-Tourism Management
06.0799	52.0999	Hospitality Services Management, Other
06.0801	52.0805	Insurance and Risk Management
06.0901	52.1101	International Business
06.1001	52.0807	Investments and Securities
06.1101	52.1002	Labor/Personnel Relations and Studies
06.1201	52.1201	Management Information Systems and Business Data Processing, General
06.1302	27.0302	Operations Research
06.1303	52.1301	Management Science
06.1399	52.1399	Management Science, Other
06.1401	52.1401	Business Marketing and Marketing Management
06.1402	52.1402	Marketing Research
06.1499	52.1499	Marketing Management and Research, Other
06.1501	52.1003	Organizational Behavior Studies
06.1601	52.1001	Human Resources Management
06.1701	52.1501	Real Estate
06.1801	52.0701	Enterprise Management and Operation, General
06.1901	52.1601	Taxation
06.2001	52.0205	Operations Management and Supervision
06.2101	52.1201	Management Information Systems and Business Data Processing, General
06.9999	52.9999	Business Management and Administrative Services, Other
07.0101	52.0302	Accounting Technician
07.0102	52.0302	Accounting Technician
07.0103	52.0302	Accounting Technician
07.0104	52.0302	Accounting Technician
07.0199	52.0399	Accounting, Other
07.0201	52.0803	Banking and Financial Support Services
07.0203	52.0803	Banking and Financial Support Services
07.0205	52.0803	Banking and Financial Support Services
07.0299	52.0803	Banking and Financial Support Services
07.0301	52.1201	Management Information Systems and Business Data Processing, General
07.0302	52.1205	Business Computer Facilities Operator
07.0303	52.0407	Information Processing/Data Entry Technician
07.0304	52.1205	Business Computer Facilities Operator
07.0305	52.1202	Business Computer Programming/Programmer
07.0306	52.1203	Business Systems Analysis and Design
07.0399	52.1299	Business Information and Data Processing Services, Other
07.0401	52.0204	Office Supervision and Management
07.0501	52.1001	Human Resources Management
07.0502	52.1001	Human Resources Management

07.0503	52.1001	Human Resources Management
07.0599	52.1099	Human Resources Management, Other
07.0601	52.0401	Administrative Assistant/Secretarial Science, General
07.0602	52.0405	Court Reporter
07.0603	52.0402	Executive Administrative Assistant/Secretary
07.0604	52.0403	Legal Administrative Assistant/Secretary
07.0605	52.0404	Medical Administrative Assistant/Secretary
07.0606	52.0401	Administrative Assistant/Secretarial Science, General
07.0607	52.0401	Administrative Assistant/Secretarial Science, General
07.0699	52.0499	Administrative and Secretarial Services, Other
07.0701	52.0408	General Office/Clerical and Typing Services
07.0702	52.0408	General Office/Clerical and Typing Services
07.0703	52.0408	General Office/Clerical and Typing Services
07.0704	52.0408	General Office/Clerical and Typing Services
07.0705	52.0408	General Office/Clerical and Typing Services
07.0707	52.0406	Receptionist
07.0708	52.0499	Administrative and Secretarial Services, Other
07.0709	52.0499	Administrative and Secretarial Services, Other
07.0799	52.0499	Administrative and Secretarial Services, Other
07.0801	52.0401	Administrative Assistant/Secretarial Science, General
07.9999	52.9999	Business Management and Administrative Services, Other
08.0101	08.0101	Apparel and Accessories Marketing Operations, General
08.0102	08.0102	Fashion Merchandising
08.0103	08.0103	Fashion Modeling
08.0104	08.0199	Apparel and Accessories Marketing Operations, Other
08.0105	08.0199	Apparel and Accessories Marketing Operations, Other
08.0199	08.0199	Apparel and Accessories Marketing Operations, Other
08.0201	08.0299	Business and Personal Services Marketing Operations, Other
08.0202	08.0299	Business and Personal Services Marketing Operations, Other
08.0203	08.0299	Business and Personal Services Marketing Operations, Other
08.0299	08.0299	Business and Personal Services Marketing Operations, Other
08.0301	08.0301	Entrepreneurship
08.0401	08.0401	Financial Services Marketing Operations
08.0501	08.9999	Marketing Operations/Marketing and Distribution, Other
08.0502	08.9999	Marketing Operations/Marketing and Distribution, Other
08.0503	08.0503	Floristry Marketing Operations
08.0599	08.9999	Marketing Operations/Marketing and Distribution, Other
08.0601	08.0601	Food Products Retailing and Wholesaling Operations
08.0602	08.0601	Food Products Retailing and Wholesaling Operations
08.0603	08.0601	Food Products Retailing and Wholesaling Operations
08.0604	08.0601	Food Products Retailing and Wholesaling Operations
08.0605	08.0601	Food Products Retailing and Wholesaling Operations
08.0699	08.0601	Food Products Retailing and Wholesaling Operations
08.0701	08.0701	Auctioneering
08.0702	08.0799	General Retailing and Wholesaling Operations and Skills, Other
08.0703	52.1403	International Business Marketing
08.0704	08.0704	General Buying Operations
08.0705	08.0705	General Retailing Operations
08.0706	08.0706	General Selling Skills and Sales Operations
08.0707	08.0799	General Retailing and Wholesaling Operations and Skills, Other
08.0708	08.0708	General Marketing Operations
08.0799	08.0799	General Retailing and Wholesaling Operations and Skills, Other
08.0801	08.9999	Marketing Operations Marketing and Distribution, Other
08.0802	08.0809	Home Products Marketing Operations
08.0803	08.9999	Marketing Operations/Marketing and Distribution, Other
08.0805	08.0809	Home Products Marketing Operations
08.0806	08.9999	Marketing Operations/Marketing and Distribution, Other
08.0807	08.0810	Office Products Marketing Operations
08.0808	08.0809	Home Products Marketing Operations
08.0899	08.0899	Home and Office Products Marketing Operations, Other

08.0901	08.0901	Hospitality and Recreation Marketing Operations, General
08.0902	08.0902	Hotel/Motel Services Marketing Operations
08.0903	08.0903	Recreation Products/Services Marketing Operations
08.0904	08.0903	Recreation Products/Services Marketing Operations
08.0905	12.0507	Waiter/Waitress and Dining Room Manager
08.0999	08.0999	Hospitality and Recreation Marketing Operations, Other
08.1001	08.1001	Insurance Marketing Operations
08.1101	08.1199	Tourism and Travel Services Marketing Operations, Other
08.1102	08.0709	General Distribution Operation
08.1104	08.1104	Tourism Promotion Operations
08.1105	08.1105	Travel Services Marketing Operations
08.1106	08.1199	Tourism and Travel Services Marketing Operations, Other
08.1199	08.1199	Tourism and Travel Services Marketing Operations, Other
08.1201	08.1299	Vehicles and Petroleum Products Marketing Operations, Other
08.1203	08.1203	Vehicle Parts and Accessories Marketing Operations
08.1204	08.1209	Petroleum Products Retailing Operations
08.1205	08.1208	Vehicle Marketing Operations
08.1206	08.1209	Petroleum Products Retailing Operations
08.1207	08.1299	Vehicles and Petroleum Products Marketing Operations, Other
08.1299	08.1299	Vehicles and Petroleum Products Marketing Operations, Other
08.9999	08.9999	Marketing Operations/Marketing and Distribution, Other
09.0101	09.0101	Communications, General
09.0201	09.0201	Advertising
09.0301	09.0101	Communications, General
09.0401	09.0401	Journalism
09.0501	09.0501	Public Relations and Organizational Communications
09.0601	09.0402	Broadcast Journalism
09.0701	09.0701	Radio and Television Broadcasting
09.0801	09.9999	Communications, Other
09.9999	09.9999	Communications, Other
10.0101	10.0101	Educational/Instructional Media Technology/Technician
10.0102	50.0602	Film-Video Making/Cinematography and Production
10.0103	10.0103	Photographic Technology/Technician
10.0104	10.0104	Radio and Television Broadcasting Technology/Technician
10.0105	10.0199	Communications Technologies/Technicians, Other
10.0106	10.0199	Communications Technologies/Technicians, Other
10.0199	10.0199	Communications Technologies/Technicians, Other
11.0101	11.0101	Computer and Information Sciences, General
11.0201	11.0201	Computer Programming
11.0301	11.0301	Data Processing Technology/Technician
11.0401	11.0401	Information Sciences and Systems
11.0501	11.0501	Computer Systems Analysis
11.0601	11.9999	Computer and Information Sciences, Other
11.9999	11.9999	Computer and Information Sciences, Other
12.0101	20.0309	Drycleaner and Launderer (Commercial)
12.0202	12.0502	Bartender/Mixologist
12.0203	12.0203	Card Dealer
12.0204	12.0204	Umpires and Other Sports Officials
12.0299	12.0299	Gaming and Sports Officiating Services, Other
12.0301	12.0301	Funeral Services and Mortuary Science
12.0401	12.0401	Cosmetic Services, General
12.0402	12.0402	Barber/Hairstylist
12.0403	12.0403	Cosmetologist
12.0404	12.0404	Electrolysis Technician
12.0405	12.0405	Massage
12.0406	12.0406	Make-up Artist
12.0499	12.0499	Cosmetic Services, Other
12.9999	12.9999	Personal and Miscellaneous Services, Other
13.0101	13.0101	Education, General
13.0201	13.0201	Bilingual/Bicultural Education

13.0202	13.0201	Bilingual/Bicultural Education
13.0299	13.0201	Bilingual/Bicultural Education
13.0301	13.0301	Curriculum and Instruction
13.0401	13.0401	Education Administration and Supervision, General
13.0402	13.0402	Administration of Special Education
13.0403	13.0403	Adult and Continuing Education Administration
13.0404	13.0404	Educational Supervision
13.0405	13.0405	Elementary, Middle and Secondary Education Administration
13.0406	13.0406	Higher Education Administration
13.0407	13.0407	Community and Junior College Administration
13.0499	13.0499	Education Administration and Supervision, Other
13.0501	13.0501	Educational/Instructional Media Design
13.0601	13.0601	Educational Evaluation and Research
13.0603	13.0603	Educational Statistics and Research Methods
13.0604	13.0604	Educational Assessment, Testing and Measurement
13.0605	13.0601	Educational Evaluation and Research
13.0606	13.0601	Educational Evaluation and Research
13.0699	13.0699	Educational Evaluation, Research and Statistics, Other
13.0701	13.0701	International and Comparative Education
13.0801	13.0802	Educational Psychology
13.0801	42.1701	School Psychology
13.0901	13.0901	Social and Philosophical Foundations of Education
13.1001	13.1001	Special Education, General
13.1002	13.1099	Special Education, Other
13.1003	13.1003	Education of the Deaf and Hearing Impaired
13.1004	13.1004	Education of the Gifted and Talented
13.1005	13.1005	Education of the Emotionally Handicapped
13.1006	13.1006	Education of the Mentally Handicapped
13.1007	13.1007	Education of the Multiple Handicapped
13.1008	13.1008	Education of the Physically Handicapped
13.1009	13.1009	Education of the Blind and Visually Handicapped
13.1010	13.1099	Special Education, Other
13.1011	13.1011	Education of the Specific Learning Disabled
13.1012	13.1012	Education of the Speech Impaired
13.1099	13.1099	Special Education, Other
13.1101	13.1101	Counselor Education Counseling and Guidance Services
13.1201	13.1201	Adult and Continuing Teacher Education
13.1202	13.1202	Elementary Teacher Education
13.1203	13.1203	Junior High/Intermediate/Middle School Teacher Education
13.1204	13.1204	Pre-Elementary Education/Early Childhood/Kindergarten Teacher Education
13.1205	13.1205	Secondary Teacher Education
13.1299	13.1299	General Teacher Education, Other
13.1301	13.1301	Agricultural Teacher Education (Vocational)
13.1302	13.1302	Art Teacher Education
13.1303	13.1303	Business Teacher Education (Vocational)
13.1304	13.1304	Driver and Safety Teacher Education
13.1305	13.1305	English Teacher Education
13.1306	13.1306	Foreign Languages Teacher Education
13.1307	13.1307	Health Teacher Education
13.1308	13.1308	Home Economics Teacher Education (Vocational)
13.1309	13.1309	Technology Teacher Education/Industrial Arts Teacher Education
13.1310	13.1310	Marketing Operations Teacher Education/Marketing and Distribution Teacher Education (Vocational)
13.1311	13.1311	Mathematics Teacher Education
13.1312	13.1312	Music Teacher Education
13.1313	13.1399	Teacher Education, Specific Academic and Vocational Programs, Other
13.1314	13.1314	Physical Education Teaching and Coaching
13.1315	13.1315	Reading Teacher Education
13.1316	13.1316	Science Teacher Education, General
13.1317	13.1317	Social Science Teacher Education

13.1318	13.1318	Social Studies Teacher Education
13.1319	13.1319	Technical Teacher Education (Vocational)
13.1320	13.1320	Trade and Industrial Teacher Education (Vocational)
13.1321	13.1321	Computer Teacher Education
13.1399	13.1399	Teacher Education, Specific Academic and Vocational Programs, Other
13.1401	13.1401	Teaching English as a Second Language/Foreign Language
13.1501	13.1501	Teacher Assistant/Aide
13.9999	13.9999	Education, Other
14.0101	14.0101	Engineering, General
14.0201	14.0201	Aerospace, Aeronautical and Astronautical Engineering
14.0301	14.0301	Agricultural Engineering
14.0401	14.0401	Architectural Engineering
14.0501	14.0501	Bioengineering and Biomedical Engineering
14.0601	14.0601	Ceramic Sciences and Engineering
14.0701	14.0701	Chemical Engineering
14.0801	14.0801	Civil Engineering, General
14.0901	14.0901	Computer Engineering
14.1001	14.1001	Electrical, Electronics and Communication Engineering
14.1002	14.1001	Electrical, Electronics and Communication Engineering
14.1101	14.1101	Engineering Mechanics
14.1201	14.1201	Engineering Physics
14.1301	14.1301	Engineering Science
14.1401	14.1401	Environmental/Environmental Health Engineering
14.1501	14.1501	Geological Engineering
14.1601	14.1601	Geophysical Engineering
14.1701	14.1701	Industrial/Manufacturing Engineering
14.1801	14.1801	Materials Engineering
14.1901	14.1901	Mechanical Engineering
14.2001	14.2001	Metallurgical Engineering
14.2101	14.2101	Mining and Mineral Engineering
14.2201	14.2201	Naval Architecture and Marine Engineering
14.2301	14.2301	Nuclear Engineering
14.2401	14.2401	Ocean Engineering
14.2501	14.2501	Petroleum Engineering
14.2601	15.1102	Surveying
14.2602	45.0702	Cartography
14.2701	14.2701	Systems Engineering
14.2801	14.2801	Textile Sciences and Engineering
14.9999	14.9999	Engineering, Other
15.0101	15.0101	Architectural Engineering Technology/Technician
15.0102	15.0101	Architectural Engineering Technology/Technician
15.0199	15.0101	Architectural Engineering Technology/Technician
15.0201	15.0201	Civil Engineering Civil Technology/Technician
15.0202	48.0101	Drafting, General
15.0203	15.1102	Surveying
15.0204	15.0201	Civil Engineering/Civil Technology/Technician
15.0299	15.0201	Civil Engineering/Civil Technology/Technician
15.0301	15.0301	Computer Engineering Technology/Technician
15.0302	15.0303	Electrical, Electronic and Communications Engineering Technology/Technician
15.0303	15.0303	Electrical, Electronic and Communications Engineering Technology/Technician
15.0304	15.0304	Laser and Optical Technology/Technician
15.0399	15.0399	Electrical and Electronic Engineering-Related Technologies/Technicians, Other
15.0401	15.0401	Biomedical Engineering-Related Technology/Technician
15.0402	15.0402	Computer Maintenance Technology/Technician
15.0403	15.0403	Electromechanical Technology/Technician
15.0404	15.0404	Instrumentation Technology/Technician
15.0405	15.0405	Robotics Technology/Technician
15.0499	15.0499	Electromechanical Instrumentation and Maintenance Technologies/Technicians, Other
15.0501	15.0501	Heating, Air Conditioning and Refrigeration Technology/Technician
15.0502	15.0599	Environmental Control Technologies/Technicians, Other

15.0503	15.0503	Energy Management and Systems Technology/Technician
15.0504	15.0506	Water Quality and Wastewater Treatment Technology/Technician
15.0505	15.0505	Solar Technology/Technician
15.0506	15.0506	Water Quality and Wastewater Treatment Technology/Technician
15.0599	15.0599	Environmental Control Technologies/Technicians, Other
15.0602	15.0699	Industrial Production Technologies/Technicians, Other
15.0603	15.0603	Industrial/Manufacturing Technology/Technician
15.0606	15.0699	Industrial Production Technologies/Technicians, Other
15.0607	15.0607	Plastics Technology/Technician
15.0609	15.0699	Industrial Production Technologies/Technicians, Other
15.0610	15.0699	Industrial Production Technologies/Technicians, Other
15.0699	15.0699	Industrial Production Technologies/Technicians, Other
15.0701	15.0701	Occupational Safety and Health Technology/Technician
15.0702	15.0702	Quality Control Technology/Technician
15.0799	15.0799	Quality Control and Safety Technologies/Technicians, Other
15.0801	15.0801	Aeronautical and Aerospace Engineering Technology/Technician
15.0803	15.0803	Automotive Engineering Technology/Technician
15.0804	15.0899	Mechanical Engineering-Related Technologies/Technicians, Other
15.0805	15.0805	Mechanical Engineering/Mechanical Technology/Technician
15.0899	15.0899	Mechanical Engineering-Related Technologies/Technicians, Other
15.0901	15.0901	Mining Technology/Technician
15.0902	15.0901	Mining Technology/Technician
15.0903	15.0903	Petroleum Technology/Technician
15.0999	15.0999	Mining and Petroleum Technologies/Technicians, Other
15.1001	15.1001	Construction/Building Technology/Technician
15.9999	15.9999	Engineering-Related Technologies/Technicians, Other
16.0101	16.0101	Foreign Languages and Literatures, General
16.0201	16.9999	Foreign Languages and Literatures, Other
16.0301	16.0301	Chinese Language and Literature
16.0302	16.0302	Japanese Language and Literature
16.0399	16.0399	East and Southeast Asian Languages and Literatures, Other
16.0402	16.0402	Russian Language and Literature
16.0403	16.0403	Slavic Languages and Literatures (Other Than Russian)
16.0499	16.0499	East European Languages and Literatures, Other
16.0501	16.0501	German Language and Literature
16.0502	16.0502	Scandinavian Languages and Literatures
16.0599	16.0599	Germanic Languages and Literatures, Other
16.0601	16.1202	Greek Language and Literature (Ancient and Medieval)
16.0703	16.0703	South Asian Languages and Literatures
16.0901	16.0901	French Language and Literature
16.0902	16.0902	Italian Language and Literature
16.0903	16.1203	Latin Language and Literature (Ancient and Medieval)
16.0904	16.0904	Portuguese Language and Literature
16.0905	16.0905	Spanish Language and Literature
16.0999	16.0999	Romance Languages and Literatures, Other
16.1001	16.9999	Foreign Languages and Literatures, Other
16.1101	16.1101	Arabic Language and Literature
16.1102	16.1102	Hebrew Language and Literature
16.1199	16.1199	Middle Eastern Languages and Literatures, Other
16.9999	16.9999	Foreign Languages and Literatures, Other
17.0101	51.0601	Dental Assistant
17.0102	51.0602	Dental Hygienist
17.0103	51.0603	Dental Laboratory Technician
17.0199	51.0699	Dental Services, Other
17.0201	51.0901	Cardiovascular Technology/Technician
17.0202	51.0999	Health and Medical Diagnostic and Treatment Services, Other
17.0203	51.0902	Electrocardiograph Technology/Technician
17.0204	51.0903	Electroencephalograph Technology/Technician
17.0205	51.0904	Emergency Medical Technology/Technician
17.0206	51.0904	Emergency Medical Technology/Technician

17.0207	51.0905	Nuclear Medical Technology/Technician
17.0208	51.0905	Nuclear Medical Technology/Technician
17.0209	51.0907	Medical Radiologic Technology/Technician
17.0210	51.0908	Respiratory Therapy Technician
17.0211	51.0909	Surgical/Operating Room Technician
17.0212	51.0910	Diagnostic Medical Sonography
17.0299	51.0999	Health and Medical Diagnostic and Treatment Services, Other
17.0301	51.1001	Blood Bank Technology/Technician
17.0302	51.1004	Medical Laboratory Technician
17.0303	51.1099	Health and Medical Laboratory Technologies/Technicians, Other
17.0304	51.2601	Health Aide
17.0305	51.0802	Medical Laboratory Assistant
17.0306	51.1002	Cytotechnologist
17.0307	51.1003	Hematology Technology/Technician
17.0308	51.1099	Health and Medical Laboratory Technologies/Technicians, Other
17.0309	51.1004	Medical Laboratory Technician
17.0310	51.1005	Medical Technology
17.0311	51.1004	Medical Laboratory Technician
17.0399	51.1099	Health and Medical Laboratory Technologies/Technicians, Other
17.0401	51.1501	Alcohol/Drug Abuse Counseling
17.0402	51.0301	Community Health Liaison
17.0404	51.1615	Home Health Aide
17.0405	51.1502	Psychiatric/Mental Health Services Technician
17.0406	51.1502	Psychiatric/Mental Health Services Technician
17.0407	51.2310	Vocational Rehabilitation Counseling
17.0408	51.1599	Mental Health Services, Other
17.0409	51.0301	Community Health Liaison
17.0410	51.0205	Sign Language Interpreter
17.0499	51.0301	Community Health Liaison
17.0499	51.1599	Mental Health Services, Other
17.0502	51.0799	Health and Medical Administrative Services, Other
17.0503	51.0801	Medical Assistant
17.0504	51.2703	Medical Illustrating
17.0505	51.0705	Medical Office Management
17.0506	51.0707	Medical Records Technology/Technician
17.0507	51.0805	Pharmacy Technician/Assistant
17.0508	51.0807	Physician Assistant
17.0510	51.0899	Health and Medical Assistants, Other
17.0512	51.0808	Veterinarian Assistant/Animal Health Technician
17.0513	51.0703	Health Unit Coordinator/Ward Clerk
17.0514	51.0899	Health and Medical Assistants, Other
17.0599	51.9999	Health Professions and Related Sciences, Other
17.0601	51.2601	Health Aide
17.0602	51.1614	Nursing Assistant/Aide
17.0605	51.1613	Practical Nurse (L.P.N. Training)
17.0606	51.0704	Health Unit Manager/Ward Supervisor
17.0699	51.1699	Nursing, Other
17.0701	51.1801	Opticianry/Dispensing Optician
17.0705	51.1802	Optical Technician/Assistant
17.0799	51.1899	Ophthalmic/Optometric Services, Other
17.0801	51.2301	Art Therapy
17.0802	51.2399	Rehabilitation/Therapeutic Services, Other
17.0803	51.2302	Dance Therapy
17.0804	31.0505	Exercise Sciences/Physiology and Movement Studies
17.0806	51.2305	Music Therapy
17.0807	51.2306	Occupational Therapy
17.0808	51.0803	Occupational Therapy Assistant
17.0809	51.2601	Health Aide
17.0811	51.2307	Orthotics/Prosthetics
17.0812	51.0899	Health and Medical Assistants, Other

17.0813	51.2308	Physical Therapy
17.0814	51.2601	Health Aide
17.0815	51.0806	Physical Therapy Assistant
17.0816	51.2309	Recreational Therapy
17.0817	51.2601	Health Aide
17.0818	51.0908	Respiratory Therapy Technician
17.0819	51.0908	Respiratory Therapy Technician
17.0820	51.2601	Health Aide
17.0822	51.2601	Health Aide
17.0899	51.2399	Rehabilitation/Therapeutic Services, Other
17.9999	51.9999	Health Professions and Related Sciences, Other
18.0101	51.0202	Audiology/Hearing Sciences
18.0102	51.0203	Speech-Language Pathology
18.0103	51.0204	Speech-Language Pathology and Audiology
18.0199	51.0299	Communication Disorders Sciences and Services, Other
18.0201	51.1301	Medical Anatomy
18.0202	51.1302	Medical Biochemistry
18.0203	51.1308	Medical Microbiology
18.0204	51.1312	Medical Pathology
18.0205	51.1313	Medical Physiology
18.0206	51.1314	Medical Toxicology
18.0299	51.1399	Medical Basic Sciences, Other
18.0301	51.0101	Chiropractic (D.C., D.C.M.)
18.0401	51.0401	Dentistry (D.D.S., D.M.D.)
18.0701	51.0701	Health Care and Services Administration
18.0701	51.0702	Hospital/Health Facilities Administration
18.0702	51.0799	Health and Medical Administrative Services, Other
18.0703	51.0706	Medical Records Administration
18.0799	51.0799	Health and Medical Administrative Services, Other
18.0901	51.1005	Medical Technology
18.1001	51.1201	Medicine (M.D.)
18.1101	51.1601	Nursing (R.N. Training)
18.1102	51.1604	Nursing Anesthetist (Post-R.N.)
18.1103	51.1606	Nursing, Maternal/Child Health (Post-R.N.)
18.1104	51.1612	Nursing, Surgical (Post-R.N.)
18.1105	51.1602	Nursing Administration (Post-R.N.)
18.1106	51.1610	Nursing, Psychiatric/Mental Health (Post-R.N.)
18.1107	51.1611	Nursing, Public Health (Post-R.N.)
18.1199	51.1699	Nursing, Other
18.1201	51.1701	Optometry (O.D.)
18.1301	51.1901	Osteopathic Medicine (D.O.)
18.1401	51.2001	Pharmacy (B.Pharm., Pharm.D.)
18.1501	51.2101	Podiatry (D.P.M., D.P., Pod.D.)
18.1701	51.1101	Pre-Dentistry Studies
18.1801	51.1102	Pre-Medicine Studies
18.1901	51.1103	Pre-Pharmacy Studies
18.2001	51.1104	Pre-Veterinary Studies
18.2201	51.1099	Health and Medical Laboratory Technologies/Technicians, Other
18.2202	51.2203	Epidemiology
18.2203	51.2207	Public Health Education and Promotion
18.2204	51.2201	Public Health, General
18.2299	51.2299	Public Health, Other
18.2401	51.2401	Veterinary Medicine (D.V.M.)
18.9999	51.9999	Health Professions and Related Sciences, Other
19.0101	19.0101	Home Economics, General
19.0201	19.0201	Business Home Economics
19.0301	19.0301	Family and Community Studies
19.0401	19.0401	Family Resource Management Studies
19.0402	19.0402	Consumer Economics and Science
19.0499	19.0499	Family/Consumer Resource Management, Other

19.0501	19.0501	Foods and Nutrition Studies, General
19.0502	19.0502	Foods and Nutrition Science
19.0503	19.0503	Dietetics/Human Nutritional Services
19.0599	19.0599	Foods and Nutrition Studies, Other
19.0601	19.0601	Housing Studies, General
19.0602	19.0601	Housing Studies, General
19.0603	19.0603	Interior Environments
19.0699	19.0699	Housing Studies, Other
19.0701	19.0701	Individual and Family Development Studies, General
19.0703	19.0703	Family and Marriage Counseling
19.0704	19.0704	Family Life and Relations Studies
19.0705	19.0705	Gerontological Services
19.0799	19.0799	Individual and Family Development Studies, Other
19.0901	19.0901	Clothing/Apparel and Textile Studies
19.0902	50.0407	Fashion Design and Illustration
19.0904	19.0901	Clothing/Apparel and Textile Studies
19.0999	19.0901	Clothing/Apparel and Textile Studies
19.9999	19.9999	Home Economics, Other
20.0201	20.0201	Child Care and Guidance Workers and Managers, General
20.0202	20.0202	Child Care Provider/Assistant
20.0203	20.0203	Child Care Services Manager
20.0204	20.0202	Child Care Provider/Assistant
20.0299	20.0299	Child Care and Guidance Workers and Managers, Other
20.0301	20.0301	Clothing, Apparel and Textile Workers and Managers, General
20.0302	20.0301	Clothing, Apparel and Textile Workers and Managers, General
20.0303	20.0303	Commercial Garment and Apparel Worker
20.0304	20.0305	Custom Tailor
20.0305	20.0305	Custom Tailor
20.0306	20.0306	Fashion and Fabric Consultant
20.0308	20.0306	Fashion and Fabric Consultant
20.0399	20.0399	Clothing, Apparel and Textile Workers and Managers, Other
20.0401	20.0401	Institutional Food Workers and Administrator, General
20.0402	12.0501	Baker/Pastry Chef
20.0403	12.0503	Culinary Arts/Chef Training
20.0403	12.0505	Kitchen Personnel/Cook and Assistant Training
20.0404	20.0404	Dietician Assistant
20.0405	20.0405	Food Caterer
20.0406	20.0409	Institutional Food Services Administrator
20.0408	20.0409	Institutional Food Services Administrator
20.0499	20.0499	Institutional Food Workers and Administrators, Other
20.0501	20.0501	Home Furnishings and Equipment Installers and Consultants, General
20.0502	20.0502	Window Treatment Maker and Installer
20.0503	20.0501	Home Furnishings and Equipment Installers and Consultants, General
20.0504	20.0501	Home Furnishings and Equipment Installers and Consultants, General
20.0505	20.0599	Home Furnishings and Equipment Installers and Consultants, Other
20.0506	20.0501	Home Furnishings and Equipment Installers and Consultants, General
20.0507	20.0501	Home Furnishings and Equipment Installers and Consultants, General
20.0599	20.0599	Home Furnishings and Equipment Installers and Consultants, Other
20.0601	20.0601	Custodial, Housekeeping and Home Services Workers and Managers, General
20.0602	20.0602	Elder Care Provider/Companion
20.0603	20.0601	Custodial, Housekeeping and Home Services Workers and Managers, General
20.0604	20.0604	Custodian/Caretaker
20.0605	20.0605	Executive Housekeeper
20.0606	20.0606	Homemaker's Aide
20.0699	20.0699	Custodial, Housekeeping and Home Services Workers and Managers, General
20.9999	20.9999	Vocational Home Economics, Other
22.0101	22.0101	Law (LL.B., J.D.)
22.0102	22.0102	Pre-Law Studies
22.0103	22.0103	Paralegal/Legal Assistant
22.0199	22.0199	Law and Legal Studies, Other
23.0101	23.0101	English Language and Literature, General
23.0201	16.1201	Classics and Classical Languages and Literatures
23.0301	23.0301	Comparative Literature
23.0401	23.0401	English Composition

23.0501	23.0501	English Creative Writing
23.0601	16.0102	Linguistics
23.0701	23.0701	American Literature (United States)
23.0801	23.0801	English Literature (British and Commonwealth)
23.1001	23.1001	Speech and Rhetorical Studies
23.1101	23.1101	English Technical and Business Writing
23.1201	13.1401	Teaching English as a Second Language/Foreign Language
23.9999	23.9999	English Language and Literature/Letters, Other
24.0101	24.0101	Liberal Arts and Sciences/Liberal Studies
24.0102	24.0102	General Studies
24.0199	24.0199	Liberal Art and Sciences, General Studies and Humanities, Other
25.0101	25.0101	Library Science/Librarianship
25.0201	45.0805	Public/Applied History and Archival Administration
25.0301	25.0301	Library Assistant
25.0401	25.0101	Library Science/Librarianship
25.0501	30.1401	Museology/Museum Studies
25.9999	25.9999	Library Science, Other
26.0101	26.0101	Biology, General
26.0201	26.0202	Biochemistry
26.0201	26.0203	Biophysics
26.0301	26.0301	Botany, General
26.0302	26.0501	Microbiology/Bacteriology
26.0304	26.0613	Genetics, Plant and Animal
26.0305	26.0305	Plant Pathology
26.0307	26.0307	Plant Physiology
26.0399	26.0399	Botany, Other
26.0401	26.0401	Cell Biology
26.0402	26.0402	Molecular Biology
26.0499	26.0499	Cell and Molecular Biology, Other
26.0501	26.0501	Microbiology/Bacteriology
26.0601	26.0601	Anatomy
26.0602	26.0614	Biometrics
26.0602	26.0615	Biostatistics
26.0603	26.0603	Ecology
26.0604	26.0699	Miscellaneous Biological Specializations, Other
26.0605	26.0699	Miscellaneous Biological Specializations, Other
26.0606	26.0699	Miscellaneous Biological Specializations, Other
26.0607	26.0607	Marine/Aquatic Biology
26.0608	26.0608	Neuroscience
26.0609	26.0609	Nutritional Sciences
26.0610	26.0610	Parasitology
26.0611	26.0611	Radiation Biology/Radiobiology
26.0612	26.0612	Toxicology
26.0699	26.0699	Miscellaneous Biological Specializations, Other
26.0701	26.0701	Zoology, General
26.0702	26.0702	Entomology
26.0703	26.0613	Genetics, Plant and Animal
26.0704	26.0704	Pathology, Human and Animal
26.0705	26.0705	Pharmacology, Human and Animal
26.0706	26.0706	Physiology, Human and Animal
26.0799	26.0799	Zoology, Other
26.9999	26.9999	Biological Sciences/Life Sciences, Other
27.0101	27.0101	Mathematics
27.0201	52.0802	Actuarial Science
27.0301	27.0301	Applied Mathematics, General
27.0401	27.0101	Mathematics
27.0501	27.0501	Mathematical Statistics
27.9999	27.9999	Mathematics, Other
28.0501	49.0309	Marine Science/Merchant Marine Officer
29.0101	29.0101	Military Technologies

29.9999	29.0101	Military Technologies, Other
30.0101	30.0101	Biological and Physical Sciences
30.0201	39.0701	Pastoral Counseling and Specialized Ministries
30.0301	30.9999	Multi/Interdisciplinary Studies, Other
30.0401	24.0103	Humanities/Humanistic Studies
30.0501	30.0501	Peace and Conflict Studies
30.0601	30.0601	Systems Science and Theory
30.0701	05.0207	Women's Studies
30.0801	30.0801	Mathematics and Computer Science
30.0901	30.9999	Multi/Interdisciplinary Studies, Other
30.9999	30.9999	Multi/Interdisciplinary Studies, Other
31.0101	31.0101	Parks, Recreation and Leisure Studies
31.0201	31.0101	Parks, Recreation and Leisure Studies
31.0301	31.0301	Parks, Recreation and Leisure Facilities Management
31.0401	31.9999	Parks, Recreation, Leisure and Fitness Studies, Other
31.9999	31.9999	Parks, Recreation, Leisure and Fitness Studies, Other
38.0101	38.0101	Philosophy
38.0201	38.0201	Religion/Religious Studies
38.9999	38.9999	Philosophy and Religion
39.0101	39.0101	Biblical and Other Theological Languages and Literatures
39.0201	39.0201	Bible/Biblical Studies
39.0301	39.0301	Missions/Missionary Studies and Misology
39.0401	39.0401	Religious Education
39.0501	39.0501	Religious/Sacred Music
39.0601	39.0601	Theology/Theological Studies
39.9999	39.9999	Theological Studies and Religious Vocations, Other
40.0101	40.0101	Physical Sciences, General
40.0201	40.0201	Astronomy
40.0301	40.0301	Astrophysics
40.0401	40.0401	Atmospheric Sciences and Meteorology
40.0501	40.0501	Chemistry, General
40.0502	40.0502	Analytical Chemistry
40.0503	40.0503	Inorganic Chemistry
40.0504	40.0504	Organic Chemistry
40.0505	40.0505	Medicinal/Pharmaceutical Chemistry
40.0506	40.0506	Physical and Theoretical Chemistry
40.0599	40.0599	Chemistry, Other
40.0601	40.0601	Geology
40.0602	40.0602	Geochemistry
40.0603	40.0603	Geophysics and Seismology
40.0604	40.0604	Paleontology
40.0699	40.0699	Geological Sciences, Other
40.0701	40.0701	Metallurgy
40.0702	40.0702	Oceanography
40.0703	40.0703	Earth and Planetary Sciences
40.0799	40.0799	Miscellaneous Physical Sciences, Other
40.0801	40.0801	Physics, General
40.0802	40.0802	Chemical and Atomic/Molecular Physics
40.0806	40.0806	Nuclear Physics
40.0807	40.0807	Optics
40.0808	40.0808	Solid state and Low-Temperature Physics
40.0899	40.0899	Physics, Other
40.0901	40.0703	Earth and Planetary Sciences
40.9999	40.9999	Physical Sciences, Other
41.0101	41.0101	Biological Technology/Technician
41.0102	40.0702	Oceanography
41.0199	41.0101	Biological Technology/Technician
41.0201	41.0205	Nuclear/Nuclear Power Technology/Technician
41.0202	41.0205	Nuclear/Nuclear Power Technology/Technician
41.0203	41.0205	Nuclear/Nuclear Power Technology/Technician

41.0204	41.0204	Industrial Radiologic Technology/Technician
41.0299	41.0299	Nuclear and Industrial Radiologic Technologies/Technicians, Other
41.0301	41.0301	Chemical Technology/Technician
41.0302	41.0399	Physical Science Technologies/Technicians, Other
41.0303	15.0611	Metallurgical Technology/Technician
41.0304	41.0399	Physical Science Technologies/Technicians, Other
41.0305	40.0702	Oceanography
41.0399	41.0399	Physical Science Technologies/Technicians, Other
41.9999	41.9999	Science Technologies/Technicians, Other
42.0101	42.0101	Psychology, General
42.0201	42.0201	Clinical Psychology
42.0301	42.0301	Cognitive Psychology and Psycholinguistics
42.0401	42.0401	Community Psychology
42.0501	42.9999	Psychology, Other
42.0601	42.0601	Counseling Psychology
42.0701	42.0701	Developmental and Child Psychology
42.0801	42.0801	Experimental Psychology
42.0901	42.0901	Industrial and Organizational Psychology
42.1001	42.9999	Psychology, Other
42.1101	42.1101	Physiological Psychology/Psychobiology
42.1201	42.0301	Cognitive Psychology and Psycholinguistics
42.1301	42.9999	Psychology, Other
42.1401	42.9999	Psychology, Other
42.1501	42.9999	Psychology, Other
42.1601	42.1601	Social Psychology
42.9999	42.9999	Psychology, Other
43.0101	43.0102	Corrections/Correctional Administration
43.0102	43.0102	Corrections/Correctional Administration
43.0103	43.0103	Criminal Justice/Law Enforcement Administration
43.0104	43.0104	Criminal Justice Studies
43.0105	43.0107	Law Enforcement/Police Science
43.0106	43.0106	Forensic Technology/Technician
43.0107	43.0107	Law Enforcement/Police Science
43.0108	43.0103	Criminal Justice/Law Enforcement Administration
43.0109	43.0109	Security and Loss Prevention Services
43.0199	43.0199	Criminal Justice and Corrections, Other
43.0201	43.0201	Fire Protection and Safety Technology/Technician
43.0202	43.0202	Fire Services Administration
43.0203	43.0203	Fire Science/Firefighting
43.0299	43.0299	Fire Protection, Other
43.9999	43.9999	Protective Services, Other
44.0101	44.0401	Public Administration
44.0201	44.0201	Community Organization, Resources and Services
44.0301	45.0901	International Relations and Affairs
44.0401	44.0401	Public Administration
44.0501	44.0501	Public Policy Analysis
44.0601	44.9999	Public Administration and Services, Other
44.0602	44.9999	Public Administration and Services, Other
44.0603	44.9999	Public Administration and Services, Other
44.0699	44.9999	Public Administration and Services, Other
44.0701	44.0701	Social Work
44.0702	51.1503	Clinical and Medical Social Work
44.0799	44.0701	Social Work
44.9999	44.9999	Public Administration and Services, Other
45.0101	45.0101	Social Sciences, General
45.0201	45.0201	Anthropology
45.0301	45.0301	Archaeology
45.0302	45.0301	Archaeology
45.0401	45.0401	Criminology
45.0501	45.0501	Demography and Population Studies

45.0601	45.0601	Economics, General
45.0701	45.0701	Geography
45.0801	45.0801	History, General
45.0901	45.0901	International Relations and Affairs
45.1001	45.1001	Political Science, General
45.1101	45.1101	Sociology
45.1201	45.1201	Urban Affairs/Studies
45.9999	45.9999	Social Sciences and History, Other
46.0101	46.0101	Mason and Tile Setter
46.0102	46.0101	Mason and Tile Setter
46.0103	46.0101	Mason and Tile Setter
46.0199	46.0101	Mason and Tile Setter
46.0201	46.0201	Carpenter
46.0301	46.0301	Electrical and Power Transmission Installer, General
46.0302	46.0302	Electrician
46.0303	46.0303	Lineworker
46.0399	46.0399	Electrical and Power Transmission Installers, Other
46.0401	46.0401	Building/Property Maintenance and Manager
46.0402	46.9999	Construction Trades,Other
46.0403	46.0403	Construction/Building Inspection
46.0404	46.9999	Construction Trades, Other
46.0405	46.9999	Construction Trades, Other
46.0406	46.9999	Construction Trades, Other
46.0407	46.9999	Construction Trades, Other
46.0408	46.0408	Painter and Wall Coverer
46.0409	46.9999	Construction Trades, Other
46.0410	46.9999	Construction Trades, Other
46.0499	46.0499	Construction and Building Finishers and Managers, Other
46.0501	46.0501	Plumber and Pipefitter
46.0502	46.0501	Plumber and Pipefitter
46.0503	46.0501	Plumber and Pipefitter
46.0599	46.0501	Plumber and Pipefitter
46.9999	46.9999	Construction Trades, Other
47.0101	47.0101	Electrical and Electronics Equipment Installer and Repairer, General
47.0102	47.0102	Business Machine Repairer
47.0103	47.0103	Communication Systems Installer and Repairer
47.0104	47.0104	Computer Installer and Repairer
47.0105	47.0105	Industrial Electronics Installer and Repairer
47.0106	47.0106	Major Appliance Installer and Repairer
47.0107	47.0199	Electrical and Electronics Equipment Installer and Repairer, Other
47.0108	47.0199	Electrical and Electronics Equipment Installer and Repairer, Other
47.0109	47.0199	Electrical and Electronics Equipment Installer and Repairer, Other
47.0199	47.0199	Electrical and Electronics Equipment Installer and Repairer, Other
47.0201	47.0201	Heating, Air Conditioning and Refrigeration Mechanic and Repairer
47.0202	47.0201	Heating, Air Conditioning and Refrigeration Mechanic and Repairer
47.0203	47.0201	Heating, Air Conditioning and Refrigeration Mechanic and Repairer
47.0299	47.0201	Heating, Air Conditioning and Refrigeration Mechanic and Repairer
47.0301	47.0399	Industrial Equipment Maintenance and Repairers, Other
47.0302	47.0302	Heavy Equipment Maintenance and Repairer
47.0303	47.0303	Industrial Machinery Maintenance and Repairer
47.0304	47.0399	Industrial Equipment Maintenance and Repairers, Other
47.0305	47.0399	Industrial Equipment Maintenance and Repairers, Other
47.0399	47.0399	Industrial Equipment Maintenance and Repairers, Other
47.0401	47.0401	Instrument Calibration and Repairer
47.0402	47.0402	Gunsmith
47.0403	47.0403	Locksmith and Safe Repairer
47.0404	47.0404	Musical Instrument Repairer
47.0405	47.0499	Miscellaneous Mechanics and Repairers, Other
47.0407	47.0499	Miscellaneous Mechanics and Repairers, Other
47.0408	47.0408	Watch, Clock and Jewelry Repairer

47.0499	47.0499	Miscellaneous Mechanics and Repairers, Other
47.0501	47.0501	Stationary Energy Sources Installer and Operator
47.0502	47.0501	Stationary Energy Sources Installer and Operator
47.0504	47.0501	Stationary Energy Sources Installer and Operator
47.0599	47.0501	Stationary Energy Sources Installer and Operator
47.0601	47.0699	Vehicle and Mobile Equipment Mechanics and Repairers, Other
47.0603	47.0603	Auto/Automotive Body Repairer
47.0604	47.0604	Auto/Automotive Mechanic/Technician
47.0605	47.0605	Diesel Engine Mechanic and Repairer
47.0606	47.0606	Small Engine Mechanic and Repairer
47.0607	47.0607	Aircraft Mechanic/Technician, Airframe
47.0608	47.0608	Aircraft Mechanic/Technician, Powerplant
47.0699	47.0699	Vehicle and Mobile Equipment Mechanics and Repairers, Other
47.9999	47.9999	Mechanics and Repairers, Other
48.0101	48.0101	Drafting, General
48.0102	48.0102	Architectural Drafting
48.0103	48.0103	Civil/Structural Drafting
48.0104	48.0104	Electrical/Electronics Drafting
48.0105	48.0105	Mechanical Drafting
48.0199	48.0199	Drafting, Other
48.0201	48.0201	Graphic and Printing Equipment Operators, General
48.0202	48.0299	Graphic and Printing Equipment Operators, Other
48.0203	50.0402	Graphic Design, Commercial Art and Illustration
48.0204	50.0406	Commercial Photography
48.0205	48.0205	Mechanical Typesetter and Composer
48.0206	48.0206	Lithographer and Platemaker
48.0207	10.0103	Photographic Technology/Technician
48.0208	48.0208	Printing Press Operator
48.0209	48.0299	Graphic and Printing Equipment Operators, Other
48.0210	48.0299	Graphic and Printing Equipment Operators, Other
48.0299	48.0299	Graphic and Printing Equipment Operators, Other
48.0301	48.0399	Leatherworkers and Upholsterers, Other
48.0302	48.0399	Leatherworkers and Upholsterers, Other
48.0303	48.0303	Upholsterer
48.0304	48.0304	Shoe, Boot and Leather Repair
48.0399	48.0399	Leatherworkers and Upholsterers, Other
48.0401	12.0599	Culinary Arts and Related Services, Other
48.0402	12.0506	Meatcutter
48.0403	12.0506	Meatcutter
48.0499	12.0599	Culinary Arts and Related Services, Other
48.0501	48.0501	Machinist/Machine Technologist
48.0502	48.0599	Precision Metal Workers, Other
48.0503	48.0503	Machine Shop Assistant
48.0504	48.0501	Machinist/Machine Technologies
48.0505	48.0501	Machinist/Machine Technologies
48.0506	48.0506	Sheet Metal Worker
48.0507	48.0507	Tool and Die Maker/Technologist
48.0508	48.0508	Welder/Welding Technologist
48.0599	48.0599	Precision Metal Works, Other
48.0601	48.9999	Precision Production Trades, Other
48.0602	47.0408	Watch, Clock and Jewelry Repairer
48.0604	15.0607	Plastics Technology/Technician
48.0699	48.9999	Precision Production Trades, Other
48.0701	48.0701	Woodworker, General
48.0702	48.0702	Furniture Designer and Maker
48.0703	48.0703	Cabinet Maker and Millworker
48.0799	48.0799	Woodworkers, Other
48.9999	48.9999	Precision Production Trades, Other
49.0101	49.0101	Aviation and Airway Science
49.0102	49.0102	Aircraft Pilot and Navigator (Professional)

49.0104	49.0104	Aviation Management
49.0105	49.0105	Air Traffic Controller
49.0106	49.0106	Flight Attendant
49.0107	49.0107	Aircraft Pilot (Private)
49.0199	49.0199	Air Transportation Workers, Other
49.0201	49.0299	Vehicle and Equipment Operators, Other
49.0202	49.0202	Construction Equipment Operator
49.0203	49.0299	Vehicle and Equipment Operators, Other
49.0204	49.0299	Vehicle and Equipment Operators, Other
49.0205	49.0205	Truck, Bus and Other Commercial Vehicle Operator
49.0299	49.0299	Vehicle and Equipment Operators, Other
49.0301	49.0399	Water Transportation Workers, Other
49.0302	49.0399	Water Transportation Workers, Other
49.0303	49.0303	Fishing Technology/Commercial Fishing
49.0304	49.0304	Diving (Professional)
49.0305	49.0399	Water Transportation Workers, Other
49.0306	49.0306	Marine Maintenance and Ship Repairer
49.0308	49.0309	Marine Science/Merchant Marine Officer
49.0399	49.0399	Water Transportation Workers, Other
49.9999	49.9999	Transportation and Materials Moving Workers, Other
50.0101	50.0101	Visual and Performing Arts
50.0201	50.0201	Crafts, Folk Art and Artisanry
50.0202	50.0711	Ceramic Arts and Ceramics
50.0204	50.0712	Fiber, Textile and Weaving Arts
50.0205	50.0201	Crafts, Folk Art and Artisanry
50.0206	50.0713	Metal and Jewelry Arts
50.0299	50.0201	Crafts, Folk Art and Artisanry
50.0301	50.0301	Dance
50.0401	50.0401	Design and Visual Communications
50.0402	50.0402	Graphic Design, Commercial Art and Illustration
50.0403	50.0402	Graphic Design, Commercial Art and Illustration
50.0404	50.0404	Industrial Design
50.0405	50.0502	Technical Theater/Theater Design and Stagecraft
50.0499	50.0499	Design and Applied Arts, Other
50.0501	50.0501	Drama/Theater Arts, General
50.0601	50.0601	Film/Cinema Studies
50.0602	50.0602	Film-Video Making/Cinematography and Production
50.0603	50.0699	Film/Video and Photographic Arts, Other
50.0604	50.0699	Film/Video and Photographic Arts, Other
50.0605	50.0605	Photography
50.0606	50.0602	Film-Video Making/Cinematography and Production
50.0699	50.0699	Film-Video and Photographic Arts, Other
50.0701	50.0701	Art, General
50.0702	50.0703	Art History, Criticism and Conservation
50.0703	50.0703	Art History, Criticism and Conservation
50.0704	50.0704	Arts Management
50.0705	50.0705	Drawing
50.0706	50.0706	Intermedia
50.0708	50.0708	Painting
50.0709	50.0709	Sculpture
50.0710	50.0710	Printmaking
50.0799	50.0799	Fine Arts and Art Studies, Other
50.0901	50.0901	Music, General
50.0902	50.0902	Music History and Literature
50.0903	50.0903	Music - General Performance
50.0904	50.0904	Music Theory and Composition
50.0999	50.0999	Music, Other
50.9999	50.9999	Visual and Performing Arts, Other

CHAPTER II

Consumer and Homemaking Education Programs

20.0101	20.0101	Comprehensive Consumer and Homemaking Education
20.0102	20.0102	Child Development, Care and Guidance
20.0103	20.0103	Clothing and Textiles
20.0104	20.0104	Consumer Education
20.0105	20.0105	Exploratory Homemaking
20.0106	20.0106	Family/Individual Health
20.0107	20.0107	Family Living and Parenthood
20.0108	20.0108	Food and Nutrition
20.0109	20.0109	Home Management
20.0110	20.0110	Housing, Home Furnishings and Equipment
20.0199	20.0199	Consumer and Homemaking Education, Other

CHAPTER III

Technology Education/Industrial Arts Programs

21.0101	21.0101	Technology Education/Industrial Arts
21.0102	21.0101	Technology Education/Industrial Arts
21.0103	21.0101	Technology Education/Industrial Arts
21.0104	21.0101	Technology Education/Industrial Arts
21.0105	21.0101	Technology Education/Industrial Arts
21.0106	21.0101	Technology Education/Industrial Arts
21.0107	21.0101	Technology Education/Industrial Arts
21.0199	21.0101	Technology Education/Industrial Arts

CHAPTER IV

Reserve Officers' Training Corps Programs

28.0101	28.0101	Air Force R.O.T.C./Air Science
28.0201		Deleted
28.0301	28.0301	Army R.O.T.C./Military Science
28.0401	28.0401	Navy/Marine Corps R.O.T.C./Naval Science
28.9999		Deleted

CHAPTER V

Personal Improvement and Leisure Programs

32.0101	32.0101	Basic Skills, General
32.0102	32.0108	Reading, Literacy and Communications Skills
32.0103	32.0108	Reading, Literacy and Communications Skills
32.0104	32.0104	Computational Skills
32.0105	32.0105	Job Seeking/Changing Skills
32.0106		Deleted
32.0107	32.0107	Career Exploration/Awareness Skills
32.0199	32.0199	Basic Skills, Other
33.0101	33.0101	Citizenship Activities, General
33.0102	33.0102	American Citizenship Education
33.0103	33.0103	Community Awareness
33.0104	33.0104	Community Involvement
33.0199	33.0199	Citizenship Activities, Other
34.0101		Deleted
34.0102	34.0102	Birthing and Parenting Knowledge and Skills
34.0103	34.0103	Personal Health Improvement and Maintenance
34.0104	34.0104	Addiction Prevention and Treatment
34.0199	34.0199	Health-Related Knowledge and Skills, Other
35.0101	35.0101	Interpersonal and Social Skills, General
35.0102	35.0102	Interpersonal Relationships Skills
35.0103	35.0103	Business and Social Skills
35.0104	35.0199	Interpersonal and Social Skills, Other
35.0199	35.0199	Interpersonal and Social Skills, Other
36.0101	36.0101	Leisure and Recreational Activities, General
36.0102	36.0102	Handicrafts and Model-Making
36.0103	36.0103	Board, Card and Role-Playing Games
36.0104		Assign to Specific Hobby (see Appendix D)
36.0105	36.0105	Home Maintenance and Improvement
36.0106	36.0106	Nature Appreciation
36.0107	36.0107	Pet Ownership and Care
36.0108	36.0108	Sports and Exercise
36.0109	36.0109	Travel and Exploration
36.0199	36.0199	Leisure and Recreational Activities, Other
37.0101	37.0101	Self-Awareness and Personal Assessment
37.0102	37.0102	Stress Management and Coping Skills
37.0103	37.0103	Personal Decision-Making Skills
37.0104	37.0104	Self Esteem and Values Clarification
37.0105		Deleted
37.0199	37.0199	Personal Awareness and Self-Improvement, Other

CHAPTER VI

Dental, Medical and Veterinary Residency Programs

18.0404	51.2801	Dental/Oral Surgery Speciality
18.0402	51.2802	Dental Public Health Speciality
18.0403	51.2803	Endodontics Speciality
18.0404	51.2801	Dental/Oral Surgery Speciality
18.0405	51.2804	Oral Pathology Speciality
18.0406	51.2805	Orthodontics Speciality
18.0407	51.2806	Pedodontics Speciality
18.0408	51.2807	Periodontics Speciality
18.0409	51.2808	Prosthodontics
18.0499	51.2899	Dental Residency Programs, Other
18.1002	51.2902	Allergies and Immunology Residency
18.1003	51.2903	Anesthesiology Residency
18.1004	51.2909	Colon and Rectal Surgery Residency
18.1005	51.2913	Dermatology Residency
18.1006	51.2916	Emergency Medicine Residency
18.1007	51.2918	Family Medicine Residency
18.1008	51.2922	Geriatric Medicine Residency
18.1009	51.1307	Medical Immunology
18.1010	51.2928	Internal Medicine Residency
18.1011	51.2933	Neurological Surgery/Neurosurgery Residency
18.1012	51.2936	Nuclear Medicine Residency
18.1013	51.2938	Obstetrics and Gynecology Residency
18.1014	51.2941	Ophthalmology Residency
18.1015	51.2801	Dental/Oral Surgery Speciality
18.1016	51.2942	Orthopedics/Orthopedic Surgery Residency
18.1017	51.2943	Otolaryngology Residency
18.1018	51.2944	Pathology Residency
18.1019	51.2951	Pediatrics Residency
18.1020	51.2952	Physical and Rehabilitation Medicine Residency
18.1021	51.2953	Plastic Surgery Residency
18.1022	51.2954	Preventive Medicine Residency
18.1023	51.2955	Psychiatry Residency
18.1024	51.2934	Neurology Residency
18.1025	51.2937	Nuclear Radiology Residency
18.1025	51.2958	Radiation Oncology Residency
18.1025	51.2915	Diagnostic Radiology Residency
18.1026	51.2921	General Surgery Residency
18.1027	51.2962	Thoracic Surgery Residency
18.1028	51.2963	Urology Residency
18.1029	51.2924	Hematology Residency
18.1030	51.2961	Sports Medicine Residency
18.1099	51.2999	Medical Residency Programs, Other

1985 CIP CODES AND TITLES
DELETED IN 1990 CIP, IN NUMERICAL CODE ORDER

1985 CIP CODE NUMBER	INSTRUCTIONAL PROGRAM TITLE
01.0202	Agricultural Electrification, Power, and Controls
01.0203	Agricultural Mechanics, Construction and Maintenance Skills
01.0205	Agricultural Structures, Equipment, and Facilities
01.0206	Soil and Water Mechanical Practices
01.0305	Game Farm Management
01.0402	Food Products
01.0499	Agricultural Products and Processing, Other
01.0502	Agricultural Services
01.0503	Agricultural Supplies Marketing
01.0504	Pet Grooming
01.0506	Horseshoeing
01.0602	Arboriculture
02.0208	Livestock
03.0202	Conservation
03.0402	Forest Production
03.0403	Forest Products Utilization
03.0504	Forest Engineering
04.01	Architecture and Environmental Design, General
04.0101	Architecture and Environmental Design, General
04.08	Land Use Management and Reclamation
04.0801	Land Use Management and Reclamation
06.	Business and Management
06.01	Business and Management, General
06.0101	Business and Management, General
06.0301	Banking and Finance
06.0403	Product Management
06.06	Human Resources Development
06.0601	Human Resources Development
06.0701	Hotel/Motel Management
06.0702	Recreational Enterprises Management
06.0703	Resort Management
06.0704	Restaurant Management
06.0705	Transportation Management
06.08	Insurance and Risk Management
06.10	Investments and Securities
06.11	Labor/Industrial Relations
06.15	Organizational Behavior
06.16	Personnel Management
06.1601	Personnel Management
06.20	Trade and Industrial Supervision and Management
06.2001	Trade and Industrial Supervision and Management
06.21	Computer Installation Management
06.2101	Computer Installation Management
06.99	Business and Management, Other

07.	Business (Administrative Support)
07.01	*Accounting, Bookkeeping and Related Programs*
07.0101	Accounting, Bookkeeping, and Related Programs, General
07.0102	Accounting and Computing
07.0103	Bookkeeping
07.0104	Machine Billing, Bookkeeping, and Computing
07.0199	Accounting, Bookkeeping, and Related Programs, Other
07.02	Banking and Related Financial Programs, General
07.0203	Insurance Clerk
07.0205	Teller
07.0301	Business Data Processing and Related Programs, General
07.0302	Business Computer and Console Operation
07.0303	Business Data Entry Equipment Operation
07.0304	Business Data Peripheral Equipment Operation
07.04	Office Supervision and Management
07.05	Personnel and Training Programs
07.0501	Personnel and Training Programs, General
07.0502	Training Assisting
07.0503	Personnel Assisting
07.0599	Personnel and Training Programs, Other
07.0601	Secretarial and Related Programs, General
07.0606	Secretarial
07.0607	Stenographic
07.0699	Secretarial and Related Programs, Other
07.0701	Typing, General Office and Related Programs, General
07.0702	Clerk-Typist
07.0703	Correspondence Clerk
07.0704	Duplicating Machine Operation
07.0705	General Office Clerk
07.0708	Shipping, Receiving and Stock Clerk
07.0709	Traffic Rate and Transportation Clerk
07.0799	Typing, General Office and Related Programs, Other
07.08	Word Processing
07.0801	Word Processing
07.99	Business (Administrative Support), Other

08.0104	Footwear Marketing
08.0105	Jewelry Marketing
08.0201	Business and Personal Services Marketing
08.0202	Display
08.0203	Marketing of Business or Personal Services
08.05	Floristry, Farm and Garden Supplies Marketing
08.0501	Floristry, Farm and Garden Supplies Marketing, General
08.0502	Farm and Garden Supplies Marketing
08.0599	Floristry, Farm and Garden Supplies Marketing, Other
08.0602	Convenience Store Marketing
08.0603	Specialty Foods Marketing
08.0604	Supermarket Marketing
08.0605	Wholesale Food Marketing
08.0699	Food Marketing, Other
08.0702	Industrial Sales
08.0707	Wholesaling
08.0801	Home and Office Products Marketing, General
08.0802	Appliance Marketing
08.0803	Building Materials Marketing
08.0805	Furniture Marketing
08.0806	Hardware Marketing
08.0807	Office Products and Equipment Marketing
08.0808	Specialty Home Furnishings Marketing
08.0904	Recreation Products Marketing

08.1101	Transportation and Travel Marketing, General
08.1102	Transportation Marketing
08.1106	Warehouse Services Marketing
08.1201	Vehicles and Petroleum Marketing, General
08.1204	Petroleum Wholesaling
08.1205	Recreational Vehicles and Accessories Marketing
08.1206	Service Station Marketing
08.1207	Vehicle Rental and Leasing
09.03	Communications Research
09.0301	Communications Research
09.08	Telecommunications
09.0801	Telecommunications
10.0102	Motion Picture Technology
10.0105	Sound Recording Technology
10.0106	Video Technology
11.06	Microcomputer Applications
11.0601	Microcomputer Applications
12.01	Drycleaning and Laundering Services
13.0202	Bilingual Education Assisting
13.0299	Bilingual/Crosscultural Education, Other
13.0605	Elementary and Secondary Research
13.0606	Higher Education Research
13.1002	Education of the Culturally Disadvantaged
13.1010	Remedial Education
13.1313	Nutritional Education
14.1002	Microelectronic Engineering
14.26	Surveying and Mapping Science
15.0102	Architectural Interior Design Technology
15.0199	Architectural Technologies, Other
15.0202	Drafting and Design Technology/Technician
15.0204	Urban Planning Technology
15.0299	Civil Technologies, Other
15.0302	Electrical Technology
15.0502	Air Pollution Control Technology
15.0504	Sanitation Technology
15.0602	Food Processing Technology
15.0606	Optical Technology
15.0609	Textile Technology
15.0610	Welding Technology
15.0804	Marine Propulsion Technology
15.0902	Mining (excluding coal) Technology
16.02	African (Non-Semitic) Languages
16.0201	African (Non-Semitic) Languages
16.10	Native American Languages
16.1001	Native American Languages
17.0202	Dialysis Technology
17.0205	Emergency Medical Technology - Ambulance
17.0206	Emergency Medical Technology - Paramedic
17.0302	Chemistry Technology
17.0303	Clinical Animal Technology
17.0304	Clinical Laboratory Aide

17.0305	Clinical Laboratory Assisting
17.0308	Histologic Technology
17.0311	Microbiology Technology
17.04	Mental Health/Human Services
17.0405	Mental Health/Human Services Assisting
17.0406	Mental Health/Human Services Technology
17.0408	Therapeutic Child Care Work
17.0409	Population and Family Planning
17.05	Miscellaneous Allied Health Services
17.0502	Central Supply Technology
17.0510	Podiatric Assisting
17.0514	Chiropractic Assisting
17.06	Nursing-Related Services
17.0601	Geriatric Aide
17.0701	Ophthalmic Dispensing
17.0705	Optometric Technology
17.0802	Corrective Therapy
17.0809	Occupational Therapy Aide
17.0812	Orthopedic Assisting
17.0814	Physical Therapy Aide
17.0816	Recreational Therapy Assisting
17.0819	Respiratory Therapy Assisting
17.0820	Speech/Hearing Therapy Aide
17.0822	Recreational Therapy Aide
17.99	Allied Health, Other
18.0404	Oral/Maxial Facial Surgery
18.0701	Health Services Administration
18.0702	Health Care Planning
18.09	Medical Laboratory
18.17	Pre-Dentistry
18.18	Pre-Medicine
18.19	Pre-Pharmacy
18.20	Pre-Veterinary
18.2201	Public Health Laboratory Science
18.2204	Public Health Practice and Management
19.0602	Household Equipment
19.0904	Textile Science
19.0999	Textiles, Apparel and Clothing Studies, Other
20.0204	Foster Care/Family Care
20.0302	Clothing Maintenance Aide
20.0304	Custom Apparel/Garment Seamstress
20.0308	Wedding/Specialty Consulting
20.0406	Food Service
20.0408	School Food Service
20.0503	Custom Slipcovering and Upholstering
20.0504	Floral Design
20.0505	Home Decorating
20.0506	Home Furnishings Aide
20.0507	Home-Service Assisting
20.0603	Consumer Aide/Assisting
21.0102	Construction
21.0103	Drafting and Design
21.0104	Electricity/Electronics
21.0105	Energy, Power, and Transportation
21.0106	Graphic Arts

21.0107	Manufacturing/Materials Processing
21.0199	Industrial Arts, Other
23.02	Classics
23.06	Linguistics (Includes Phonetics, Semantics and Philology)
23.12	English as a Second Language
23.1201	English as a Second Language
25.02	Archival Science
25.0201	Archival Science
26.0201	Biochemistry and Biophysics
26.0602	Biometrics and Biostatistics
26.0604	Embryology
26.0605	Endocrinology
26.0606	Histology
26.0703	Genetics, Human and Animal
27.02	Actuarial Sciences
27.04	Pure Mathematics
27.0401	Pure Mathematics
29.99	Military Technologies, Other
29.9999	Military Technologies, Other
30.02	Clinical Pastoral Care
30.0201	Clinical Pastoral Care
30.03	Engineering and Other Disciplines
30.0301	Engineering and Other Disciplines
30.04	Humanities and Social Sciences
30.0401	Humanities and Social Sciences
30.09	Imaging Science
30.0901	Imaging Science
31.02	Outdoor Recreation
31.0201	Outdoor Recreation
31.04	Water Resources
31.0401	Water Resources
32.0102	Academic and Intellectual Skills
32.0103	Communications Skills
32.0106	Motor Skills
34.0101	Health-Related Activities, General
35.0104	Social Role Engineering
36.0104	Hobbies
37.0105	Values, Attitudes, and Beliefs
40.09	Planetary Science
40.0901	Planetary Science
41.0102	Oceanographic (Biological) Technology
41.0199	Biological Technologies, Other
41.0201	Nuclear Materials Handling Technology
41.0202	Nuclear Powerplant Operation Technology
41.0203	Nuclear Powerplant Radiation Control Technology
41.0302	Geological Technology/Technician

41.0304	Meteorological Technology
41.0305	Oceanographic (Physical) Technology
42.05	Comparative Psychology
42.0501	Comparative Psychology
42.10	Personality Psychology
42.1001	Personality Psychology
42.12	Psycholinguistics
42.1201	Psycholinguistics
42.13	Psychometrics
42.1301	Psychometrics
42.14	Psychopharmacology
42.1401	Psychopharmacology
42.15	Quantitative Psychology
42.1501	Quantitative Psychology
43.0101	Correctional Administration
43.0105	Criminal Justice Technology
43.0108	Law Enforcement Administration
44.01	Public Affairs, General
44.0101	Public Affairs, General
44.03	International Public Service
44.0301	International Public Service
44.06	Public Works
44.0601	Public Sanitation
44.0602	Public Transportation
44.0603	Public Utilities
44.0699	Public Works, Other
44.0799	Social Work, Other
45.0302	Archaeological Technology
46.0102	Brickmasonry, Block and Stonemasonry
46.0103	Tile Setting
46.0199	Brickmasonry, Stonemasonry and Tile Setting, Other
46.0402	Concrete Placing and Finishing
46.0404	Drywall Installation
46.0405	Floor Covering Installation
46.0406	Glazing
46.0407	Insulation Installation
46.0409	Plastering
46.0410	Roofing
46.0502	Pipefitting and Steamfitting
46.0503	Plumbing
46.0599	Plumbing, Pipefitting and Steamfitting, Other
47.0107	Motor Repair
47.0108	Small Appliance Repair
47.0109	Vending and Recreational Machine Repair
47.0202	Cooling and Refrigeration
47.0203	Heating and Air Conditioning
47.0299	Heating, Air Conditioning, and Refrigeration Mechanics, Other
47.0301	Industrial Equipment Maintenance and Repair, General
47.0304	Mine Equipment Maintenance and Repair
47.0305	Oil and Gas Drilling Equipment Operation and Maintenance
47.0405	Operation, Maintenance, and Repair of Audio-Visual Equipment
47.0407	Sporting Goods Equipment Repair
47.0502	Conventional (Non-Nuclear) Electrical Power Generation
47.0504	Pumping Plants

47.0599	Stationary Energy Sources, Other
47.0601	Vehicle and Mobile Equipment Mechanics and Repairers, General
48.0202	Bookbinding
48.0207	Photographic Laboratory and Darkroom
48.0209	Silk Screen Making and Printing
48.0210	Photoengraving
48.0301	Leatherworking and Upholstery, General
48.0302	Saddlemaking and Repair
48.04	Precision Food Production
48.0401	Precision Food Production, General
48.0403	Slaughtering and Butchering
48.0499	Precision Food Production, Other
48.0502	Foundry Work
48.0504	Metal Fabrication
48.0505	Metal Patternmaking
48.06	Precision Work, Assorted Materials
48.0601	Industrial Ceramics Manufacturing
48.0602	Jewelry Design, Fabrication, and Repair
48.0604	Plastics
48.0699	Precision Work, Assorted Materials, Other
49.0201	Vehicle and Equipment Operation, General
49.0203	Material Handling
49.0204	Mining Equipment Operation
49.0301	Water Transportation, General
49.0302	Barge and Boat Operations
49.0305	Marina Operations
49.0308	Sailors and Deckhands
50.0205	Glass
50.0299	Crafts, Other
50.0403	Illustration Design
50.0405	Theater Design
50.0603	Film Animation
50.0604	Holography
50.0606	Video
50.0702	Art Conservation

APPENDIX D

INSTRUCTIONAL PROGRAMS ADDED IN 1990 IN NUMERICAL CODE ORDER

1985 CIP CODE NUMBER	INSTRUCTIONAL PROGRAM TITLE
01.0507	Equestrian/Equine Studies, Horse Management and Training
02.0102	Agricultural Extension
02.0205	Agricultural Animal Physiology
02.0405	Plant Breeding and Genetics
02.0406	Agricultural Plant Pathology
02.0407	Agricultural Plant Physiology
03.0102	Environmental Science/Studies
05.0206	Asian-American Studies
08.0204	Business Services Marketing
08.0205	Personal Services Marketing
08.05	Floristry Marketing Operations
08.0709	General Distribution Operations
08.0809	Home Products Marketing Operations
08.0810	Office Products Marketing Operations
08.0906	Food Sales Operations
08.1208	Vehicle Marketing Operations
08.1209	Petroleum Products Retailing Operations
08.13	Health Products and Services Marketing Operations
08.1301	Health Products and Services Marketing Operations
09.0402	Broadcast Journalism
09.0403	Mass Communications
09.0499	Journalism and Mass Communication, Other
11.07	Computer Science
11.0701	Computer Science
12.05	Culinary Arts and Related Services

12.0504	Food and Beverage/Restaurant Operations Manager
12.0505	Kitchen Personnel/Cook and Assistant Training
12.0599	Culinary Arts and Related Services, Other
13.0802	Educational Psychology
13.1013	Education of the Autistic
13.1102	College Student Counseling and Personnel Services
13.1206	Teacher Education, Multiple Levels
13.1322	Biology Teacher Education
13.1323	Chemistry Teacher Education
13.1324	Drama and Dance Teacher Education
13.1325	French Language Teacher Education
13.1326	German Language Teacher Education
13.1327	Health Occupations Teacher Education (Vocational)
13.1328	History Teacher Education
13.1329	Physics Teacher Education
13.1330	Spanish Language Teacher Education
13.1331	Speech Teacher Education
14.0802	Geotechnical Engineering
14.0803	Structural Engineering
14.0804	Transportation and Highway Engineering
14.0805	Water Resources Engineering
14.0899	Civil Engineering, Other
14.29	Engineering Design
14.2901	Engineering Design
14.30	Engineering/Industrial Management
14.3001	Engineering/Industrial Management
14.31	Materials Science
14.3101	Materials Science
14.32	Polymer/Plastics Engineering
14.3201	Polymer/Plastics Engineering
15.0507	Environmental and Pollution Control Technology/Technician
15.0611	Metallurgical Technology/Technician
15.11	Miscellaneous Engineering-Related Technologies
15.1101	Engineering-Related Technology/Technician, General
15.1103	Hydraulic Technology/Technician
16.0103	Foreign Language Interpretation and Translation
16.0602	Greek Language and Literature (Modern)
16.12	Classical and Ancient Near Eastern Languages and Literatures
16.1299	Classical and Ancient Near Eastern Languages and Literatures, Other
19.0202	Home Economics Communications
19.0505	Food Systems Administration

19.0706	Child Growth, Care and Development Studies
20.0409	Institutional Food Services Administrator
22.0104	Juridical Science/Legal Specialization (LL.M., M.C.L., J.S.D./S.J.D.)
24.0103	Humanities/Humanistic Studies
26.0202	Biochemistry
26.0203	Biophysics
26.0613	Genetics, Plant and Animal
26.0614	Biometrics
26.0615	Biostatistics
26.0616	Biotechnology Research
26.0617	Evolutionary Biology
26.0618	Biological Immunology
26.0619	Virology
27.0399	Applied Mathematics, Other
30.10	Biopsychology
30.1001	Biopsychology
30.11	Gerontology
30.1101	Gerontology
30.12	Historic Preservation, Conservation and Architectural History
30.1201	Historic Preservation, Conservation and Architectural History
30.13	Medieval and Renaissance Studies
30.1301	Medieval and Renaissance Studies
30.14	Museology/Museum Studies
30.15	Science, Technology and Society
30.1501	Science, Technology and Society
31.05	Health and Physical Education/Fitness
31.0501	Health and Physical Education, General
31.0502	Adapted Physical Education/Therapeutic Recreation
31.0503	Athletic Training and Sports Medicine
31.0504	Sport and Fitness Administration/Management
31.0505	Exercise Science/Physiology and Movement Studies
31.0506	Socio-Psychological Sports Studies
31.0599	Health and Physical Education/Fitness, Other
39.0602	Divinity/Ministry (B.D., M.Div.)
39.0603	Rabbinical and Talmudic Studies (M.H.L./Rav.)
39.0604	Pre-Theological/Pre-Ministerial Studies
39.0699	Theological and Ministerial Studies, Other
39.07	Pastoral Counseling and Specialized Ministries

39.0701	Pastoral Counseling and Specialized Ministries
40.0507	Polymer Chemistry
40.0804	Elementary Particle Physics
40.0805	Plasma and High Temperature Physics
40.0809	Acoustics
40.0810	Mathematical/Theoretical Physics
41.0205	Nuclear/Nuclear Power Technology/Technician
42.17	School Psychology
42.1701	School Psychology
45.0602	Applied and Resource Economics
45.0603	Econometrics and Quantitative Economics
45.0604	Development Economics and International Development
45.0605	International Economics
45.0699	Economics, Other
45.0802	American (United States) History
45.0803	European History
45.0804	History and Philosophy of Science and Technology
45.0805	Public/Applied History and Archival Administration
45.0899	History, Other
45.1002	American Government and Politics
45.1099	Political Science and Government, Other
47.0609	Aviation Systems and Avionics Maintenance Technologist/Technician
47.0610	Bicycle Mechanic and Repairer
47.0611	Motorcycle Mechanic and Repairer
48.0211	Computer Typography and Composition Equipment Operator
48.0212	Desktop Publishing Equipment Operator
50.0502	Technical Theater/Theater Design and Stagecraft
50.0503	Acting and Directing
50.0504	Playwriting and Screenwriting
50.0505	Drama/Theater Literature, History and Criticism
50.0599	Dramatic/Theater Arts and Stagecraft, Other
50.0702	Fine/Studio Arts
50.0905	Musicology and Ethnomusicology
50.0906	Music Conducting
50.0907	Music - Piano and Organ Performance
50.0908	Music - Voice and Choral/Opera Performance
50.0909	Music Business Management and Merchandising
51.0201	Communication Disorders, General
51.05	Dental Clinical Sciences/Graduate Dentistry (M.S., Ph.D.)
51.0501	Dental Clinical Sciences/Graduate Dentistry (M.S., Ph.D.)

51.0701	Health Systems/Health Services Administration
51.0702	Hospital/Health Facilities Administration
51.0708	Medical Transcription
51.0802	Medical Laboratory Assistant
51.0804	Ophthalmic Medical Assistant
51.0906	Perfusion Technology/Technician
51.1006	Optometric/Opthalmic Laboratory Technician
51.1199	Health and Medical Preparatory Programs, OTher
51.1303	Medical Biomathematics and Biometrics
51.1304	Medical Biophysics/Physics
51.1305	Medical Cell Biology
51.1306	Medical Genetics
51.1307	Medical Immunology
51.1309	Medical Molecular Biology
51.1310	Medical Neurobiology
51.1311	Medical Nutrition
51.14	Medical Clinical Sciences (M.S., Ph.D.)
51.1401	Medical Clinical Sciences (M.S., Ph.D.)
51.1502	Psychiatric Mental Health Services Technician
51.1603	Nursing, Adult Health (Post-R.N.)
51.1605	Nursing, Family Practice (Post-R.N.)
51.1607	Nursing Midwifery (Post-R.N.)
51.1608	Nursing Science (Post-R.N.)
51.1609	Nursing, Pediatric (Post-R.N.)
51.1801	Opticianry/Dispensing Optician
51.1802	Optical Technician/Assistant
51.1803	Ophthalmic Medical Technologist
51.1804	Orthoptics
51.2002	Pharmacy Administration and Pharmaceutics
51.2003	Medical Pharmacology and Pharmaceutical Sciences
51.2099	Pharmacy, Other
51.2201	Public Health, General
51.2202	Environmental Health
51.2204	Health and Medical Biostatistics
51.2205	Health Physics/Radiologic Health
51.2206	Occupational Health and Industrial Hygiene
51.2303	Hypnotherapy
51.2304	Movement Therapy
51.25	Veterinary Clinical Sciences (M.S., Ph.D.)
51.2501	Veterinary Clinical Sciences (M.S., Ph.D.)
51.26	Miscellaneous Health Aides
51.2601	Health Aide
51.2701	Acupuncture and Oriental Medicine
51.2702	Medical Dietician
51.2704	Naturopathic Medicine
51.2705	Psychoanalysis

52.0203	Logistics and Materials Management
52.0205	Operations Management and Supervision
52.0206	Non-Profit and Public Management
52.0302	Accounting Technician
52.0401	Administrative Assistant/Secretarial Science, General
52.0407	Information Processing/Data Entry Technician
52.0408	General Office/Clerical and Typing Services
52.0499	Administrative/Secretarial Services, Other
52.05	Business Communications
52.0501	Business Communications
52.0702	Franchise Operation
52.0799	Enterprise Management and Operation, Other
52.0801	Finance, General
52.0804	Financial Planning
52.0806	International Finance
52.0808	Public Finance
52.0899	Financial Management and Services, Other
52.0901	Hospitality Administration/Management
52.0902	Hotel/Motel and Restaurant Management
52.0903	Travel/Tourism Management
52.1001	Human Resources Management
52.1099	Human Resources Management, Other
52.12	Business Information and Data Processing Systems
52.1204	Business Systems Networking and Telecommunications
52.1205	Business Computer Facilities Operator
52.1299	Business Information and Data Processing Services, Other
52.1302	Business Statistics
32.0108	Reading, Literacy and Communications Skills
36.0110	Art
36.0111	Collecting
36.0112	Cooking and Other Domestic Skills
36.0113	Computer Games and Programming Skills
36.0114	Dancing
36.0115	Music
36.0116	Reading
36.0117	Theater
36.0118	Writing
37.0104	Self-Esteem and Values Clarification
51.2901	Aerospace Medicine Residency
51.2904	Blood Banking Residency
51.2905	Cardiology Residency
51.2906	Chemical Pathology Residency
51.2907	Child/Pediatric Neurology Residency

51.2908	Child Psychiatry Residency
51.2910	Critical Care Anesthesiology Residency
51.2911	Critical Care Medicine Residency
51.2912	Critical Care Surgery Residency
51.2913	Dermatopathology Residency
51.2915	Diagnostic Radiology Residency
51.2917	Endocrinology and Metabolism Residency
51.2919	Forensic Pathology Residency
51.2920	Gastroenterology Residency
51.2922	Geriatric Medicine Residency
51.2923	Hand Surgery Residency
51.2925	Hematological Pathology Residency
51.2926	Immunopathology Residency
51.2927	Infectious Disease Residency
51.2929	Laboratory Medicine Residency
51.2930	Musculoskeletal Oncology Residency
51.2931	Neonatal-Perinatal Medicine Residency
51.2932	Nephrology Residency
51.2935	Neuropathology Residency
51.2937	Nuclear Radiology Residency
51.2939	Occupational Medicine Residency
51.2940	Oncology Residency
51.2945	Pediatric Cardiology Residency
51.2946	Pediatric Endocrinology Residency
51.2947	Pediatric Hemato-Oncology Residency
51.2948	Pediatric Nephrology Residency
51.2949	Pediatric Orthopedics Residency
51.2950	Pediatric Surgery Residency
51.2956	Public Health Medicine Residency
51.2957	Pulmonary Disease Residency
51.2958	Radiation Oncology Residency
51.2959	Radioisotopic Pathology Residency
51.2960	Rheumatology Residency
51.2964	Vascular Surgery Residency

51.3001	Veterinary Anesthesiology
51.3002	Veterinary Dentistry
51.3003	Veterinary Dermatology
51.3004	Veterinary Emergency and Critical Care Medicine
51.3005	Veterinary Internal Medicine
51.3006	Laboratory Animal Medicine
51.3007	Veterinary Microbiology
51.3008	Veterinary Nutrition
51.3009	Veterinary Ophthalmology
51.3010	Veterinary Pathology
51.3011	Veterinary Practice
51.3012	Veterinary Preventive Medicine
51.3013	Veterinary Radiology
51.3014	Veterinary Surgery
51.3015	Theriogenology
51.3016	Veterinary Toxicology
51.3017	Zoological Medicine
51.3099	Veterinary Residency Programs, Other

53.0101	Regular High Schol Diploma
53.0102	College Preparatory High School Diploma
53.0103	Vocational High School Diploma
53.0104	Honors/Regents High School Diploma
53.0199	High School/Secondary Diplomas, Other

53.0201	High School Equivalence Certificate
53.0202	High School Certificate of Competence
53.0203	Certificate of IEP Completion
53.0299	High School/Secondary Certificates, Other

APPENDIX E

ALPHABETIC INDEX OF ALL 1990 CIP CODES

1990 CIP CODE NUMBER	INSTRUCTIONAL PROGRAM TITLE
52.0301	Accounting
52.0399	Accounting, Other
52.0302	Accounting Technician
40.0809	Acoustics
50.0503	Acting and Directing
52.0802	Actuarial Science
51.2701	Acupuncture and Oriental Medicine
31.0502	Adapted Physical Education/Therapeutic Recreation
34.0104	Addiction Prevention and Treatment
13.0402	Administration of Special Education
52.0499	Administrative and Secretarial Services, Other
52.0401	Administrative Assistant/Secretarial Science, General
13.0403	Adult and Continuing Education Administration
13.1201	Adult and Continuing Teacher Education
09.0201	Advertising
15.0801	Aeronautical and Aerospace Engineering Tech./Technician
14.0201	Aerospace, Aeronautical and Astronautical Engineering
51.2901	Aerospace Medicine Residency
05.0101	African Studies
05.0201	Afro-American (Black) Studies
01.0401	Agricultural and Food Products Processing Operations and Mgmt.
02.0202	Agricultural Animal Breeding and Genetics
02.0203	Agricultural Animal Health
01.0302	Agricultural Animal Husbandry and Production Management
02.0204	Agricultural Animal Nutrition
02.0205	Agricultural Animal Physiology
01.0102	Agricultural Business/Agribusiness Operations
01.0101	Agricultural Business and Management, General
01.0199	Agricultural Business and Management, Other
01.9999	Agricultural Business and Production, Other
01.0103	Agricultural Economics
14.0301	Agricultural Engineering
02.0102	Agricultural Extension
01.0201	Agricultural Mechanization, General
01.0299	Agricultural Mechanization, Other
02.0406	Agricultural Plant Pathology
02.0407	Agricultural Plant Physiology
01.0204	Agricultural Power Machinery Operator
01.0399	Agricultural Production Workers and Managers, Other
01.0301	Agricultural Production Workers and Managers, General
01.0599	Agricultural Supplies and Related Services, Other
01.0501	Agricultural Supplies Retailing and Wholesaling
13.1301	Agricultural Teacher Education (Vocational)
02.0101	Agriculture/Agricultural Sciences, General
02.9999	Agriculture/Agricultural Sciences, Other
02.0402	Agronomy and Crop Science

28.0101	Air Force R.O.T.C./Air Science
49.0105	Air Traffic Controller
49.0199	Air Transportation Workers, Other
47.0607	Aircraft Mechanic/Technician, Airframe
47.0608	Aircraft Mechanic/Technician, Powerplant
49.0107	Aircraft Pilot (Private)
49.0102	Aircraft Pilot and Navigator (Professional)
51.1501	Alcohol/Drug Abuse Counseling
51.2902	Allergies and Immunology Residency
45.0802	American (United States) History
33.0102	American Citizenship Education
45.1002	American Government and Politics
05.0202	American Indian/Native American Studies
23.0701	American Literature (United States)
05.0102	American Studies/Civilization
40.0502	Analytical Chemistry
26.0601	Anatomy
51.2903	Anesthesiology Residency
02.0201	Animal Sciences, General
02.0299	Animal Sciences, Other
01.0505	Animal Trainer
45.0201	Anthropology
08.0199	Apparel and Accessories Marketing Operations, Other
08.0101	Apparel and Accessories Marketing Operations, General
45.0602	Applied and Resource Economics
27.0301	Applied Mathematics, General
27.0399	Applied Mathematics, Other
01.0303	Aquaculture Operations and Production Management
16.1101	Arabic Language and Literature
45.0301	Archeology
48.0102	Architectural Drafting
14.0401	Architectural Engineering
15.0101	Architectural Engineering Tech./Technician
04.0401	Architectural Environmental Design
04.0701	Architectural Urban Design and Planning
04.0201	Architecture
04.9999	Architecture and Related Programs, Other
05.9999	Area, Ethnic and Cultural Studies, Other
05.0199	Area Studies, Other
28.0301	Army R.O.T.C./Military Science
36.0110	Art
50.0701	Art, General
50.0703	Art History, Criticism and Conservation
13.1302	Art Teacher Education
51.2301	Art Therapy
50.0704	Arts Management
05.0206	Asian-American Studies
05.0103	Asian Studies
40.0201	Astronomy
40.0301	Astrophysics
31.0503	Athletic Training and Sports Medicine
40.0401	Atmospheric Sciences and Meteorology
08.0701	Auctioneering
51.0202	Audiology/Hearing Sciences
47.0603	Auto/Automotive Body Repairer
47.0604	Auto/Automotive Mechanic/Technician
15.0803	Automotive Engineering Tech./Technician
49.0101	Aviation and Airway Science
49.0104	Aviation Management
47.0609	Aviation Systems and Avionics Main. Technologist/Technician

12.0501	Baker/Pastry Chef
52.0803	Banking and Financial Support Services
12.0402	Barber/Hairstylist
12.0502	Bartender/Mixologist
51.1399	Basic Medical Sciences, Other
32.0101	Basic Skills, General
32.0199	Basic Skills, Other
39.0201	Bible/Biblical Studies
39.0101	Biblical and Other Theological Languages and Literatures
47.0610	Bicycle Mechanic and Repairer
13.0201	Bilingual/Bicultural Education
26.0202	Biochemistry
14.0501	Bioengineering and Biomedical Engineering
30.0101	Biological and Physical Sciences
26.0618	Biological Immunology
26.9999	Biological Sciences/Life Sciences, Other
41.0101	Biological Tech./Technician
26.0101	Biology, General
13.1322	Biology Teacher Education
15.0401	Biomedical Engineering-Related Tech./Technician
26.0614	Biometrics
26.0203	Biophysics
30.1001	Biopsychology
26.0615	Biostatistics
26.0616	Biotechnology Research
34.0102	Birthing and Parenting Knowledge and Skills
51.1001	Blood Bank Tech./Technician
51.2904	Blood Banking Residency
36.0103	Board, Card and Role-Playing Games
26.0301	Botany, General
26.0399	Botany, Other
09.0402	Broadcast Journalism
46.0401	Building/Property Main. and Manager
52.0201	Business Administration and Management, General
52.0299	Business Administration and Management, Other
08.0299	Business and Personal Services Marketing Operations, Other
35.0103	Business and Social Skills
52.0501	Business Communications
52.1205	Business Computer Facilities Operator
52.1202	Business Computer Programming/Programmer
52.0101	Business, General
19.0201	Business Home Economics
52.1299	Business Information and Data Processing Services, Other
47.0102	Business Machine Repairer
52.9999	Business Management and Administrative Services, Other
52.0601	Business/Managerial Economics
52.1401	Business Marketing and Marketing Management
52.1399	Business Quantitative Methods and Management Science, Other
08.0204	Business Services Marketing Operations
52.1302	Business Statistics
52.1203	Business Systems Analysis and Design
52.1204	Business Systems Networking and Telecommunications
13.1303	Business Teacher Education (Vocational)
48.0703	Cabinet Maker and Millworker
05.0115	Canadian Studies
12.0203	Card Dealer
51.2905	Cardiology Residency
51.0901	Cardiovascular Tech./Technician
32.0107	Career Exploration/Awareness Skills
46.0201	Carpenter

45.0702	Cartography
26.0499	Cell and Molecular Biology, Other
26.0401	Cell Biology
14.0601	Ceramic Sciences and Engineering
50.0711	Ceramics Arts and Ceramics
53.0203	Certificate of IEP Completion
40.0802	Chemical and Atomic/Molecular Physics
14.0701	Chemical Engineering
51.2906	Chemical Pathology Residency
41.0301	Chemical Tech./Technician
40.0501	Chemistry, General
40.0599	Chemistry, Other
13.1323	Chemistry Teacher Education
20.0201	Child Care and Guidance Workers and Managers, General
20.0299	Child Care and Guidance Workers and Managers, Other
20.0202	Child Care Provider/Assistant
20.0203	Child Care Services Manager
20.0102	Child Development, Care and Guidance
19.0706	Child Growth, Care and Development Studies
51.2907	Child/Pediatric Neurology Residency
51.2908	Child Psychiatry Residency
16.0301	Chinese Language and Literature
51.0101	Chiropractic (D.C., D.C.M.)
33.0101	Citizenship Activities, General
33.0199	Citizenship Activities, Other
04.0301	City/Urban, Community and Regional Planning
15.0201	Civil Engineering/Civil Tech./Technician
14.0801	Civil Engineering, General
14.0899	Civil Engineering, Other
48.0103	Civil/Structural Drafting
16.1299	Classical and Ancient Near Eastern Languages and Literatures, Other
16.1201	Classics and Classical Languages and Literatures
51.1503	Clinical and Medical Social Work
42.0201	Clinical Psychology
20.0103	Clothing and Textiles
19.0901	Clothing/Apparel and Textile Studies
20.0399	Clothing, Apparel and Textile Workers and Managers, Other
20.0301	Clothing, Apparel and Textile Workers and Managers, General
42.0301	Cognitive Psychology and Psycholinguistics
36.0111	Collecting
13.1102	College/Postsecondary Student Counseling and Personnel Services
53.0102	College Preparatory High School Diploma
51.2909	Colon and Rectal Surgery Residency
20.0303	Commercial Garment and Apparel Worker
50.0406	Commercial Photography
51.0201	Communication Disorders, General
51.0299	Communication Disorders Sciences and Services, Other
47.0103	Communication Systems Installer and Repairer
09.0101	Communications, General
09.9999	Communications, Other
10.0199	Communications Technol./Technicians, Other
13.0407	Community and Junior College Administration
33.0103	Community Awareness
51.0301	Community Health Liaison
33.0104	Community Involvement
44.0201	Community Organization, Resources and Services
42.0401	Community Psychology
23.0301	Comparative Literature
20.0101	Comprehensive Consumer and Homemaking Education
32.0104	Computational Skills

11.0101	Computer and Information Sciences, General
11.9999	Computer and Information Sciences, Other
14.0901	Computer Engineering
15.0301	Computer Engineering Tech./Technician
36.0113	Computer Games and Programming Skills
47.0104	Computer Installer and Repairer
15.0402	Computer Main. Tech./Technician
11.0201	Computer Programming
11.0701	Computer Science
11.0501	Computer Systems Analysis
13.1321	Computer Teacher Education
48.0211	Computer Typography and Composition Equipment Operator
03.9999	Conservation and Renewable Natural Resources, Other
46.0499	Construction and Building Finishers and Managers, Other
46.0403	Construction/Building Inspector
15.1001	Construction/Building Tech./Technician
49.0202	Construction Equipment Operator
46.9999	Construction Trades, Other
20.0199	Consumer and Homemaking Education, Other
19.0402	Consumer Economics and Science
20.0104	Consumer Education
36.0112	Cooking and Other Domestic Skills
43.0102	Corrections/Correctional Administration
12.0401	Cosmetic Services, General
12.0499	Cosmetic Services, Other
12.0403	Cosmetologist
42.0601	Counseling Psychology
13.1101	Counselor Education Counseling and Guidance Services
52.0405	Court Reporter
50.0201	Crafts, Folk Art and Artisanry
43.0199	Criminal Justice and Corrections, Other
43.0103	Criminal Justice/Law Enforcement Administration
43.0104	Criminal Justice Studies
45.0401	Criminology
51.2910	Critical Care Anesthesiology Residency
51.2911	Critical Care Medicine Residency
51.2912	Critical Care Surgery Residency
01.0304	Crop Production Operations and Management
12.0599	Culinary Arts and Related Services, Other
12.0503	Culinary Arts/Chef Training
13.0301	Curriculum and Instruction
20.0601	Custodial, Housekeeping and Home Services Workers and Managers, Gen.
20.0699	Custodial, Housekeeping and Home Services Workers and Managers, Other
20.0604	Custodian/Caretaker
20.0305	Custom Tailor
51.1002	Cytotechnologist
02.0206	Dairy Science
50.0301	Dance
51.2302	Dance Therapy
36.0114	Dancing
11.0301	Data Processing Tech./Technician
45.0501	Demography/Population Studies
51.0601	Dental Assistant
51.0501	Dental Clinical Sciences/Graduate Dentistry (M.S., Ph.D.)
51.0602	Dental Hygienist
51.0603	Dental Laboratory Technician
51.2801	Dental/Oral Surgery Specialty
51.2802	Dental Public Health Specialty
51.2899	Dental Residency Programs, Other
51.0699	Dental Services, Other

51.0401	Dentistry (D.D.S., D.M.D.)
51.2913	Dermatology Residency
51.2914	Dermatopathology Residency
50.0499	Design and Applied Arts, Other
50.0401	Design and Visual Communications
48.0212	Desktop Publishing Equipment Operator
45.0604	Development Economics and International Development
42.0701	Developmental and Child Psychology
51.0910	Diagnostic Medical Sonography
51.2915	Diagnostic Radiology Residency
47.0605	Diesel Engine Mechanic and Repairer
19.0503	Dietetics/Human Nutritional Services
20.0404	Dietician Assistant
49.0304	Diver (Professional)
39.0602	Divinity/Ministry (B.D., M.Div.)
48.0101	Drafting, General
48.0199	Drafting, Other
13.1324	Drama and Dance Teacher Education
50.0501	Drama/Theater Arts, General
50.0505	Drama/Theater Literature, History and Criticism
50.0599	Dramatic/Theater Arts and Stagecraft, Other
50.0705	Drawing
13.1304	Driver and Safety Teacher Education
20.0309	Drycleaner and Launderer (Commercial)
40.0703	Earth and Planetary Sciences
16.0399	East and Southeast Asian Languages and Literatures, Other
05.0104	East Asian Studies
16.0499	East European Languages and Literatures, Other
05.0105	Eastern European Area Studies
26.0603	Ecology
45.0603	Econometrics and Quantitative Economics
45.0601	Economics, General
45.0699	Economics, Other
13.0401	Education Administration and Supervision, General
13.0499	Education Administration and Supervision, Other
13.0101	Education, General
13.1013	Education of the Autistic
13.1009	Education of the Blind and Visually Handicapped
13.1003	Education of the Deaf and Hearing Impaired
13.1005	Education of the Emotionally Handicapped
13.1004	Education of the Gifted and Talented
13.1006	Education of the Mentally Handicapped
13.1007	Education of the Multiple Handicapped
13.1008	Education of the Physically Handicapped
13.1011	Education of the Specific Learning Disabled
13.1012	Education of the Speech Impaired
13.9999	Education, Other
13.0604	Educational Assessment, Testing and Measurement
13.0601	Educational Evaluation and Research
13.0699	Educational Evaluation, Research and Statistics, Other
13.0501	Educational/Instructional Media Design
10.0101	Educational/Instructional Media Tech./Technician
13.0802	Educational Psychology
13.0603	Educational Statistics and Research Methods
13.0404	Educational Supervision
20.0602	Elder Care Provider/Companion
15.0399	Electrical and Electronic Engin.-Related Technol./Technicians, Other
47.0101	Electrical and Electronics Equipment Installer and Repairer, General
47.0199	Electrical and Electronics Equipment Installer and Repairer, Other
46.0399	Electrical and Power Transmission Installer, Other

46.0301	Electrical and Power Transmission Installer, General
15.0303	Electrical, Electronic and Communications Engin. Tech./Technician
14.1001	Electrical, Electronics and Communication Engineering
48.0104	Electrical/Electronics Drafting
46.0302	Electrician
51.0902	Electrocardiograph Tech./Technician
51.0903	Electroencephalograph Tech./Technician
12.0404	Electrolysis Technician
15.0499	Electromechanical Instrumentation and Main. Technol./Technicians, Other
15.0403	Electromechanical Tech./Technician
13.0405	Elementary, Middle and Secondary Education Administration
40.0804	Elementary Particle Physics
13.1202	Elementary Teacher Education
51.0904	Emergency Medical Tech./Technician
51.2916	Emergency Medicine Residency
51.2917	Endocrinology and Metabolism Residency
51.2803	Endodontics Specialty
15.0503	Energy Management and Systems Tech./Technician
14.2901	Engineering Design
14.0101	Engineering, General
14.3001	Engineering/Industrial Management
14.1101	Engineering Mechanics
14.9999	Engineering, Other
14.1201	Engineering Physics
15.1101	Engineering-Related Tech./Technician, General
15.9999	Engineering-Related Technol./Technicians, Other
14.1301	Engineering Science
23.0401	English Composition
23.0501	English Creative Writing
23.0101	English Language and Literature, General
23.9999	English Language and Literature/Letters, Other
23.0801	English Literature (British and Commonwealth)
13.1305	English Teacher Education
23.1101	English Technical and Business Writing
52.0701	Enterprise Management and Operation, General
52.0799	Enterprise Management and Operation, Other
26.0702	Entomology
08.0301	Entrepreneurship
15.0507	Environmental and Pollution Control Tech./Technician
15.0599	Environmental Control Technol./Technicians, Other
14.1401	Environmental/Environmental Health Engineering
51.2202	Environmental Health
03.0102	Environmental Science/Studies
51.2203	Epidemiology
01.0507	Equestrian/Equine Studies, Horse Management and Training
05.0299	Ethnic and Cultural Studies, Other
45.0803	European History
05.0106	European Studies
26.0617	Evolutionary Biology
52.0402	Executive Assistant/Secretary
20.0605	Executive Housekeeper
31.0505	Exercise Sciences/Physiology and Movement Studies
42.0801	Experimental Psychology
20.0105	Exploratory Homemaking
19.0301	Family and Community Studies
19.0703	Family and Marriage Counseling
19.0499	Family/Consumer Resource Management, Other
20.0106	Family/Individual Health
19.0704	Family Life and Relations Studies
20.0107	Family Living and Parenthood

51.2918	Family Medicine Residency
19.0401	Family Resource Management Studies
01.0104	Farm and Ranch Management
20.0306	Fashion and Fabric Consultant
50.0407	Fashion Design and Illustration
08.0102	Fashion Merchandising
08.0103	Fashion Modeling
50.0712	Fiber, Textile and Weaving Arts
50.0601	Film/Cinema Studies
50.0699	Film/Video and Photographic Arts, Other
50.0602	Film-Video Making/Cinematography and Production
52.0801	Finance, General
52.0899	Financial Management and Services, Other
52.0804	Financial Planning
08.0401	Financial Services Marketing Operations
50.0799	Fine Arts and Art Studies, Other
50.0702	Fine/Studio Arts
43.0201	Fire Protection and Safety Tech./Technician
43.0299	Fire Protection, Other
43.0203	Fire Science/Firefighting
43.0202	Fire Services Administration
03.0301	Fishing and Fisheries Sciences and Management
49.0303	Fishing Tech./Commercial Fishing
49.0106	Flight Attendant
08.0503	Floristry Marketing Operations
12.0504	Food and Beverage/Restaurant Operations Manager
20.0108	Food and Nutrition
20.0405	Food Caterer
08.0601	Food Products Retailing and Wholesaling Operations
08.0906	Food Sales Operations
02.0301	Food Sciences and Tech.
19.0505	Food Systems Administration
19.0502	Foods and Nutrition Science
19.0501	Foods and Nutrition Studies, General
19.0599	Foods and Nutrition Studies, Other
16.0103	Foreign Language Interpretation and Translation
16.0101	Foreign Languages and Literatures, General
16.9999	Foreign Languages and Literatures, Other
13.1306	Foreign Languages Teacher Education
51.2919	Forensic Pathology Residency
43.0106	Forensic Tech./Technician
03.0401	Forest Harvesting and Production Tech./Technician
03.0506	Forest Management
03.0499	Forest Production and Processing, Other
03.0404	Forest Products Tech./Technician
03.0599	Forestry and Related Sciences, Other
03.0501	Forestry, General
03.0502	Forestry Sciences
52.0702	Franchise Operation
16.0901	French Language and Literature
13.1325	French Language Teacher Education
12.0301	Funeral Services and Mortuary Science
48.0702	Furniture Designer and Maker
12.0299	Gaming and Sports Officiating Services, Other
51.2920	Gastroenterology Residency
08.0704	General Buying Operations
08.0709	General Distribution Operations
08.0708	General Marketing Operations
52.0408	General Office/Clerical and Typing Services
08.0799	General Retailing and Wholesaling Operations and Skills, Other

08.0705	General Retailing Operations
08.0706	General Selling Skills and Sales Operations
24.0102	General Studies
51.2921	General Surgery Residency
13.1299	General Teacher Education, Other
26.0613	Genetics, Plant and Animal
40.0602	Geochemistry
45.0701	Geography
40.0699	Geological and Related Sciences, Other
14.1501	Geological Engineering
40.0601	Geology
14.1601	Geophysical Engineering
40.0603	Geophysics and Seismology
14.0802	Geotechnical Engineering
51.2922	Geriatric Medicine Residency
16.0501	German Language and Literature
13.1326	German Language Teacher Education
16.0599	Germanic Languages and Literatures, Other
19.0705	Gerontological Services
30.1101	Gerontology
48.0201	Graphic and Printing Equipment Operator, General
48.0299	Graphic and Printing Equipment Operators, Other
50.0402	Graphic Design, Commercial Art and Illustration
16.1202	Greek Language and Literature (Ancient and Medieval)
16.0601	Greek Language and Literature (Modern)
01.0604	Greenhouse Operations and Management
47.0402	Gunsmith
51.2923	Hand Surgery Residency
36.0102	Handicrafts and Model-Making
51.2601	Health Aide
51.0799	Health and Medical Administrative Services, Other
51.0899	Health and Medical Assistants, Other
51.2204	Health and Medical Biostatistics
51.0999	Health and Medical Diagnostic and Treatment Services, Other
51.1099	Health and Medical Laboratory Technol./Technicians, Other
51.1199	Health and Medical Preparatory Programs, Other
31.0599	Health and Physical Education/Fitness, Other
31.0501	Health and Physical Education, General
13.1327	Health Occupations Teacher Education (Vocational)
51.2205	Health Physics/Radiologic Health
08.1301	Health Products and Services Marketing Operations
51.9999	Health Professions and Related Sciences, Other
34.0199	Health-Related Knowledge and Skills, Other
51.0701	Health System/Health Services Administration
13.1307	Health Teacher Education
51.0703	Health Unit Coordinator/Ward Clerk
51.0704	Health Unit Manager/Ward Supervisor
15.0501	Heating, Air Conditioning and Refrigeration Tech./Technician
47.0201	Heating, Air Conditioning and Refrigeration Mechanic and Repairer
47.0302	Heavy Equipment Main. and Repairer
16.1102	Hebrew Language and Literature
51.2925	Hematological Pathology Residency
51.2924	Hematology Residency
51.1003	Hematology Tech./Technician
53.0202	High School Certificate of Competence
53.0299	High School Certificates, Other
53.0201	High School Equivalence Certificate
53.0199	High School/Secondary Diplomas, Other
13.0406	Higher Education Administration
05.0203	Hispanic-American Studies

30.1201	Historic Preservation, Conservation and Architectural History
45.0804	History and Philosophy of Science and Tech.
45.0801	History, General
45.0899	History, Other
13.1328	History Teacher Education
08.0899	Home and Office Products Marketing Operations, Other
19.0202	Home Economics Communications
19.0101	Home Economics, General
19.9999	Home Economics, Other
13.1308	Home Economics Teacher Education (Vocational)
20.0599	Home Furnishings and Equipment Installers and Consultants, Other
20.0501	Home Furnishings and Equipment Installers and Consultants, General
51.1615	Home Health Aide
36.0105	Home Maintenance and Improvement
20.0109	Home Management
08.0809	Home Products Marketing Operations
20.0606	Homemaker's Aide
53.0104	Honors/Regents High School Diploma
02.0403	Horticulture Science
01.0601	Horticulture Services Operations and Management, General
01.0699	Horticulture Services Operations and Management, Other
51.0702	Hospital/Health Facilities Administration
52.0901	Hospitality/Administration Management
08.0999	Hospitality and Recreation Marketing Operations, Other
08.0901	Hospitality and Recreation Marketing Operations, General
52.0999	Hospitality Services Management, Other
52.0902	Hotel/Motel and Restaurant Management
08.0902	Hotel/Motel Services Marketing Operations
20.0110	Housing, Home Furnishings, and Equipment
19.0601	Housing Studies, General
19.0699	Housing Studies, Other
52.1001	Human Resources Management
52.1099	Human Resources Management, Other
24.0103	Humanities/Humanistic Studies
15.1103	Hydraulic Tech./Technician
51.2303	Hypnotherapy
51.2926	Immunopathology Residency
19.0701	Individual and Family Development Studies, General
19.0799	Individual and Family Development Studies, Other
42.0901	Industrial and Organizational Psychology
50.0404	Industrial Design
47.0105	Industrial Electronics Installer and Repairer
47.0399	Industrial Equipment Main. and Repairers, Other
47.0303	Industrial Machinery Main. and Repairer
14.1701	Industrial/Manufacturing Engineering
15.0603	Industrial/Manufacturing Tech./Technician
15.0699	Industrial Production Technol./Technicians, Other
41.0204	Industrial Radiologic Tech./Technician
51.2927	Infectious Disease Residency
52.0407	Information Processing/Data Entry Technician
11.0401	Information Sciences and Systems
40.0503	Inorganic Chemistry
20.0409	Institutional Food Services Administrator
20.0401	Institutional Food Workers and Administrators, General
20.0499	Institutional Food Workers and Administrators, Other
47.0401	Instrument Calibration and Repairer
15.0404	Instrumentation Tech./Technician
52.0805	Insurance and Risk Management
08.1001	Insurance Marketing Operations
04.0501	Interior Architecture

50.0408	Interior Design
19.0603	Interior Environments
50.0706	Intermedia
51.2928	Internal Medicine Residency
01.0701	International Agriculture
13.0701	International and Comparative Education
52.1101	International Business
52.1403	International Business Marketing
45.0605	International Economics
52.0806	International Finance
45.0901	International Relations and Affairs
35.0101	Interpersonal and Social Skills, General
35.0199	Interpersonal and Social Skills, Other
35.0102	Interpersonal Relationships Skills
52.0807	Investments and Securities
05.0204	Islamic Studies
16.0902	Italian Language and Literature
16.0302	Japanese Language and Literature
05.0205	Jewish/Judaic Studies
32.0105	Job Seeking/Changing Skills
09.0401	Journalism
09.0499	Journalism and Mass Communication, Other
13.1203	Junior High/Intermediate/Middle School Teacher Education
22.0104	Juridical Science/Legal Specialization (LL.M.,M.C.L.,J.S.D./S.J.D.)
12.0505	Kitchen Personnel/Cook and Assistant Training
52.1002	Labor/Personnel Relations and Studies
51.3006	Laboratory Animal Medicine
51.2929	Laboratory Medicine Residency
04.0601	Landscape Architecture
01.0605	Landscaping Operations and Management
15.0304	Laser and Optical Tech./Technician
05.0107	Latin American Studies
16.1203	Latin Language and Literature (Ancient and Medieval)
22.0101	Law (LL.B., J.D.)
22.0199	Law and Legal Studies, Other
43.0107	Law Enforcement/Police Science
48.0399	Leatherworkers and Upholsterers, Other
52.0403	Legal Administrative Assistant/Secretary
36.0101	Leisure and Recreational Activities, General
36.0199	Leisure and Recreational Activities, Other
24.0199	Liberal Art and Sciences, General Studies and Humanities, Other
24.0101	Liberal Arts and Sciences/Liberal Studies
25.0301	Library Assistant
25.0101	Library Science/Librarianship
25.9999	Library Science, Other
46.0303	Lineworker
16.0102	Linguistics
48.0206	Lithographer and Platemaker
47.0403	Locksmith and Safe Repairer
03.0405	Logging/Timber Harvesting
52.0203	Logistics and Materials Management
48.0503	Machine Shop Assistant
48.0501	Machinist/Machine Technologist
47.0106	Major Appliance Installer and Repairer
12.0406	Make-Up Artist
52.1201	Management Information Systems and Business Data Processing, General
52.1301	Management Science
26.0607	Marine/Aquatic Biology
49.0306	Marine Main. and Ship Repairer
49.0309	Marine Science/Merchant Marine Officer

52.1499	Marketing Management and Research, Other
08.9999	Marketing Operations/Marketing and Distribution, Other
13.1310	Marketing Operations Teacher Ed./Mkt. & Distribution Teacher Ed. (Voc.)
52.1402	Marketing Research
46.0101	Mason and Tile Setter
09.0403	Mass Communications
12.0405	Massage
14.1801	Material Engineering
14.3101	Materials Science
27.0501	Mathematical Statistics
27.0101	Mathematics
30.0801	Mathematics and Computer Science
27.9999	Mathematics, Other
13.1311	Mathematics Teacher Education
12.0506	Meatcutter
48.0105	Mechanical Drafting
14.1901	Mechanical Engineering
15.0805	Mechanical Engineering/Mechanical Tech./Technician
15.0899	Mechanical Engineering-Related Technol./Technicians, Other
48.0205	Mechanical Typesetter and Composer
47.9999	Mechanics and Repairers, Other
52.0404	Medical Administrative Assistant/Secretary
51.1301	Medical Anatomy
51.0801	Medical Assistant
51.1302	Medical Biochemistry
51.1303	Medical Biomathematics and Biometrics
51.1305	Medical Cell Biology
51.1401	Medical Clinical Sciences (M.S., Ph.D.)
51.2702	Medical Dietician
51.1306	Medical Genetics
51.2703	Medical Illustrating
51.1307	Medical Immunology
51.0802	Medical Laboratory Assistant
51.1004	Medical Laboratory Technician
51.1308	Medical Microbiology
51.1309	Medical Molecular Biology
51.1310	Medical Neurobiology
51.1311	Medical Nutrition
51.0705	Medical Office Management
51.1312	Medical Pathology
51.2003	Medical Pharmacology and Pharmaceutical Sciences
51.1304	Medical Physics/Biophysics
51.1313	Medical Physiology
51.0907	Medical Radiologic Tech./Technician
51.0706	Medical Records Administration
51.0707	Medical Records Tech./Technician
51.2999	Medical Residency Programs, Other
51.1005	Medical Technology
51.1314	Medical Toxicology
51.0708	Medical Transcription
40.0505	Medicinal/Pharmaceutical Chemistry
51.1201	Medicine (M.D.)
30.1301	Medieval and Renaissance Studies
51.1599	Mental Health Services, Other
50.0713	Metal and Jewelry Arts
14.2001	Metallurgical Engineering
15.0611	Metallurgical Tech./Technician
40.0701	Metallurgy
26.0501	Microbiology/Bacteriology
16.1199	Middle Eastern Languages and Literatures, Other

05.0108	Middle Eastern Studies
29.0101	Military Technologies
14.2101	Mining and Mineral Engineering
15.0999	Mining and Petroleum Technol./Technicians, Other
15.0901	Mining Tech./Technician
26.0699	Miscellaneous Biological Specializations, Other
47.0499	Miscellaneous Mechanics and Repairers, Other
40.0799	Miscellaneous Physical Sciences, Other
39.0301	Missions/Missionary Studies and Misology
26.0402	Molecular Biology
47.0611	Motorcycle Mechanic and Repairer
51.2304	Movement Therapy
30.9999	Multi/Interdisciplinary Studies, Other
51.2930	Musculoskeletal Oncology Residency
30.1401	Museology/Museum Studies
36.0115	Music
50.0909	Music Business Management and Merchandising
50.0906	Music Conducting
50.0901	Music, General
50.0903	Music - General Performance
50.0902	Music History and Literature
50.0999	Music, Other
50.0907	Music - Piano and Organ Performance
13.1312	Music Teacher Education
50.0904	Music Theory and Composition
51.2305	Music Therapy
50.0908	Music - Voice and Choral/Opera Performance
47.0404	Musical Instrument Repairer
50.0905	Musicology and Ethnomusicology
03.0101	Natural Resources Conservation, General
03.0203	Natural Resources Law Enforcement and Protective Services
03.0201	Natural Resources Management and Policy
03.0299	Natural Resources Management and Protective Services, Other
36.0106	Nature Appreciation
51.2704	Naturopathic Medicine
14.2201	Naval Architecture and Marine Engineering
28.0401	Navy/Marine Corps R.O.T.C./Naval Science
51.2931	Neonatal-Perinatal Medicine Residency
51.2932	Nephrology Residency
51.2933	Neurological Surgery/Neurosurgery Residency
51.2934	Neurology Residency
51.2935	Neuropathology Residency
26.0608	Neuroscience
52.0206	Non-Profit and Public Management
41.0299	Nuclear and Industrial Radiologic Technol./Technicians, Other
14.2301	Nuclear Engineering
51.0905	Nuclear Medical Tech./Technician
51.2936	Nuclear Medicine Residency
41.0205	Nuclear/Nuclear Power Tech./Technician
40.0806	Nuclear Physics
51.2937	Nuclear Radiology Residency
51.1614	Nurse Assistant/Aide
01.0606	Nursery Operations and Management
51.1601	Nursing (R.N. Training)
51.1602	Nursing Administration (Post-R.N.)
51.1603	Nursing, Adult Health (Post-R.N.)
51.1604	Nursing Anesthetist (Post-R.N.)
51.1605	Nursing, Family Practice (Post-R.N.)
51.1606	Nursing, Maternal/Child Health (Post-R.N.)
51.1607	Nursing Midwifery (Post-R.N.)

51.1699	Nursing, Other
51.1609	Nursing, Pediatric (Post-R.N.)
51.1610	Nursing, Psychiatric/Mental Health (Post-R.N.)
51.1611	Nursing, Public Health (Post-R.N.)
51.1608	Nursing Science (Post-R.N.)
51.1612	Nursing, Surgical (Post-R.N.)
26.0609	Nutritional Sciences
51.2938	Obstetrics and Gynecology Residency
51.2206	Occupational Health and Industrial Hygiene
51.2939	Occupational Medicine Residency
15.0701	Occupational Safety and Health Tech./Technician
51.2306	Occupational Therapy
51.0803	Occupational Therapy Assistant
14.2401	Ocean Engineering
40.0702	Oceanography
08.0810	Office Products Marketing Operations
52.0204	Office Supervision and Management
51.2940	Oncology Residency
52.0205	Operations Management and Supervision
27.0302	Operations Research
51.0804	Ophthalmic Medical Assistant
51.1803	Ophthalmic Medical Technologist
51.1899	Ophthalmic/Optometric Services, Other
51.2941	Ophthalmology Residency
51.1802	Optical Technician/Assistant
51.1801	Opticianry/Dispensing Optician
40.0807	Optics
51.1006	Optometric/Ophthalmic Laboratory Technician
51.1701	Optometry (O.D.)
51.2804	Oral Pathology Specialty
40.0504	Organic Chemistry
52.1003	Organizational Behavior Studies
01.0603	Ornamental Horticulture Operations and Management
51.2805	Orthodontics Specialty
51.2942	Orthopedics/Orthopedic Surgery Residency
51.1804	Orthoptics
51.2307	Orthotics/Prosthetics
51.1901	Osteopathic Medicine (D.O.)
51.2943	Otolaryngology Residency
05.0109	Pacific Area Studies
46.0408	Painter and Wall Coverer
50.0708	Painting
40.0604	Paleontology
22.0103	Paralegal/Legal Assistant
26.0610	Parasitology
31.0301	Parks, Recreation and Leisure Facilities Management
31.0101	Parks, Recreation and Leisure Studies
31.9999	Parks, Recreation, Leisure and Fitness Studies, Other
39.0701	Pastoral Counseling and Specialized Ministries
26.0704	Pathology, Human and Animal
51.2944	Pathology Residency
30.0501	Peace and Conflict Studies
51.2945	Pediatric Cardiology Residency
51.2946	Pediatric Endocrinology Residency
51.2947	Pediatric Hemato-Oncology Residency
51.2948	Pediatric Nephrology Residency
51.2949	Pediatric Orthopedics Residency
51.2950	Pediatric Surgery Residency
51.2951	Pediatrics Residency
51.2806	Pedodontics Specialty

51.0906	Perfusion Tech./Technician
51.2807	Periodontics Specialty
12.9999	Personal and Miscellaneous Services, Other
37.0199	Personal Awareness and Self-Improvement, Other
37.0103	Personal Decision-Making Skills
34.0103	Personal Health Improvement and Maintenance
08.0205	Personal Services Marketing Operations
36.0107	Pet Ownership and Care
14.2501	Petroleum Engineering
08.1209	Petroleum Products Retailing Operations
15.0903	Petroleum Tech./Technician
26.0705	Pharmacology, Human and Animal
51.2001	Pharmacy (B. Pharm., Pharm.D.)
51.2002	Pharmacy Administration and Pharmaceutics
51.2099	Pharmacy, Other
51.0805	Pharmacy Technician/Assistant
38.0101	Philosophy
38.9999	Philosophy and Religion
10.0103	Photographic Tech./Technician
50.0605	Photography
51.2952	Physical and Rehabilitation Medicine Residency
40.0506	Physical and Theoretical Chemistry
13.1314	Physical Education Teaching and Coaching
41.0399	Physical Science Technol./Technicians, Other
40.0101	Physical Sciences, General
40.9999	Physical Sciences, Other
51.2308	Physical Therapy
51.0806	Physical Therapy Assistant
51.0807	Physician Assistant
40.0801	Physics, General
40.0899	Physics, Other
13.1329	Physics Teacher Education
42.1101	Physiological Psychology/Psychobiology
26.0706	Physiology, Human and Animal
02.0405	Plant Breeding and Genetics
26.0305	Plant Pathology
26.0307	Plant Physiology
02.0408	Plant Protection (Pest Management)
02.0401	Plant Sciences, General
02.0499	Plant Sciences, Other
40.0805	Plasma and High-Temperature Physics
51.2953	Plastic Surgery Residency
15.0607	Plastics Tech./Technician
50.0504	Playwriting and Screenwriting
46.0501	Plumber and Pipefitter
51.2101	Podiatry (D.P.M., D.P., Pod.D.)
45.1099	Political Science and Government, Other
45.1001	Political Science, General
40.0507	Polymer Chemistry
14.3201	Polymer/Plastics Engineering
16.0904	Portuguese Language and Literature
02.0209	Poultry Science
51.1613	Practical Nurse (L.P.N. Training)
51.1101	Pre-Dentistry Studies
13.1204	Pre-Elementary/Early Childhood/Kindergarten Teacher Education
22.0102	Pre-Law Studies
51.1102	Pre-Medicine Studies
51.1103	Pre-Pharmacy Studies
39.0605	Pre-Theological/Pre-Ministerial Studies
51.1104	Pre-Veterinary Studies

48.0599	Precision Metal Workers, Other
48.9999	Precision Production Trades, Other
51.2954	Preventive Medicine Residency
48.0208	Printing Press Operator
50.0710	Printmaking
51.2808	Prosthodontics Specialty
43.9999	Protective Services, Other
51.1502	Psychiatric/Mental Health Services Technician
51.2955	Psychiatry Residency
51.2705	Psychoanalysis
42.0101	Psychology, General
42.9999	Psychology, Other
44.0401	Public Administration
44.9999	Public Administration and Services, Other
45.0805	Public/Applied History and Archival Administration
52.0808	Public Finance
51.2207	Public Health Education and Promotion
51.2201	Public Health, General
51.2956	Public Health Medicine Residency
51.2299	Public Health, Other
44.0501	Public Policy Analysis
09.0501	Public Relations and Organizational Communications
51.2957	Pulmonary Disease Residency
52.0202	Purchasing, Procurement and Contracts Management
15.0799	Quality Control and Safety Technol./Technicians, Other
15.0702	Quality Control Tech./Technician
39.0604	Rabbinical and Talmudic Studies (M.H.L./Rav)
26.0611	Radiation Biology/Radiobiology
51.2958	Radiation Oncology Residency
09.0701	Radio and Television Broadcasting
10.0104	Radio and Television Broadcasting Tech./Technician
51.2959	Radioisotopic Pathology Residency
02.0409	Range Science and Management
36.0116	Reading
32.0108	Reading, Literacy and Communication Skills
13.1315	Reading Teacher Education
52.1501	Real Estate
52.0406	Receptionist
08.0903	Recreation Products/Services Marketing Operations
51.2309	Recreational Therapy
53.0101	Regular High School Diploma
51.2399	Rehabilitation/Therapeutic Services, Other
38.0201	Religion/Religious Studies
39.0401	Religious Education
39.0501	Religious/Sacred Music
51.0908	Respiratory Therapy Technician
51.2960	Rheumatology Residency
15.0405	Robotics Tech./Technician
16.0999	Romance Languages and Literatures, Other
05.0110	Russian and Slavic Area Studies
16.0402	Russian Language and Literature
05.0111	Scandinavian Area Studies
16.0502	Scandinavian Languages and Literatures
42.1701	School Psychology
13.1316	Science Teacher Education, General
30.1501	Science, Tech. and Society
41.9999	Science Technol./Technicians, Other
50.0709	Sculpture
13.1205	Secondary Teacher Education
43.0109	Security and Loss Prevention Services

37.0101	Self-Awareness and Personal Assessment
37.0104	Self-Esteem and Values Clarification
48.0506	Sheet Metal Worker
48.0304	Shoe, Boot and Leather Repairer
51.0205	Sign Language Interpreter
16.0403	Slavic Languages and Literatures (Other Than Russian)
47.0606	Small Engine Mechanic and Repairer
13.0901	Social and Philosophical Foundations of Education
42.1601	Social Psychology
13.1317	Social Science Teacher Education
45.9999	Social Sciences and History, Other
45.0101	Social Sciences, General
13.1318	Social Studies Teacher Education
44.0701	Social Work
31.0506	Socio-Psychological Sports Studies
45.1101	Sociology
02.0501	Soil Sciences
15.0505	Solar Tech./Technician
40.0808	Solid state and Low-Temperature Physics
16.0703	South Asian Languages and Literatures
05.0112	South Asian Studies
05.0113	Southeast Asian Studies
16.0905	Spanish Language and Literature
13.1330	Spanish Language Teacher Education
13.1001	Special Education, General
13.1099	Special Education, Other
23.1001	Speech and Rhetorical Studies
51.0203	Speech-Language Pathology
51.0204	Speech-Language Pathology and Audiology
13.1331	Speech Teacher Education
31.0504	Sport and Fitness Administration/Management
36.0108	Sports and Exercise
51.2961	Sports Medicine Residency
47.0501	Stationary Energy Sources Installer and Operator
37.0102	Stress Management and Coping Skills
14.0803	Structural Engineering
51.0909	Surgical/Operating Room Technician
15.1102	Surveying
14.2701	Systems Engineering
30.0601	Systems Science and Theory
52.1601	Taxation
13.1501	Teacher Assistant/Aide
13.1206	Teacher Education, Multiple Levels
13.1399	Teacher Education, Specific Academic and Vocational Programs, Other
13.1401	Teaching English as a Second Language/Foreign Language
13.1319	Technical Teacher Education (Vocational)
50.0502	Technical Theater/Theater Design and Stagecraft
21.0101	Technology Education/Industrial Arts
13.1309	Technology Teacher Education/Industrial Arts Teacher Education
14.2801	Textile Sciences and Engineering
36.0117	Theater
39.0699	Theological and Ministerial Studies, Other
39.9999	Theological Studies and Religious Vocations, Other
39.0601	Theology/Theological Studies
40.0810	Theoretical and Mathematical Physics
51.3015	Theriogenology
51.2962	Thoracic Surgery Residency
48.0507	Tool and Die Maker/Technologist
08.1199	Tourism and Travel Services Marketing Operations, Other
08.1104	Tourism Promotion Operations

26.0612	Toxicology
13.1320	Trade and Industrial Teacher Education (Vocational)
14.0804	Transportation and Highway Engineering
49.9999	Transportation and Materials Moving Workers, Other
36.0109	Travel and Exploration
08.1105	Travel Services Marketing Operations
52.0903	Travel-Tourism Management
49.0205	Truck, Bus and Other Commercial Vehicle Operator
01.0607	Turf Management
12.0204	Umpires and Other Sports Officials
48.0303	Upholsterer
45.1201	Urban Affairs/Studies
51.2963	Urology Residency
51.2964	Vascular Surgery Residency
49.0299	Vehicle and Equipment Operators, Other
47.0699	Vehicle and Mobile Equipment Mechanics and Repairers, Other
08.1299	Vehicle and Petroleum Products Marketing Operations, Other
08.1208	Vehicle Marketing Operations
08.1203	Vehicle Parts and Accessories Marketing Operations
51.0808	Veterinarian Assistant/Animal Health Technician
51.3001	Veterinary Anesthesiology
51.2501	Veterinary Clinical Sciences (M.S., Ph.D.)
51.3002	Veterinary Dentistry
51.3003	Veterinary Dermatology
51.3004	Veterinary Emergency and Critical Care Medicine
51.3005	Veterinary Internal Medicine
51.2401	Veterinary Medicine (D.V.M.)
51.3007	Veterinary Microbiology
51.3008	Veterinary Nutrition
51.3009	Veterinary Ophthalmology
51.3010	Veterinary Pathology
51.3011	Veterinary Practice
51.3012	Veterinary Preventive Medicine
51.3013	Veterinary Radiology
51.3099	Veterinary Residency Programs, Other
51.3014	Veterinary Surgery
51.3016	Veterinary Toxicology
26.0619	Virology
50.0101	Visual and Performing Arts
50.9999	Visual and Performing Arts, Other
53.0103	Vocational High School Diploma
20.9999	Vocational Home Economics, Other
51.2310	Vocational Rehabilitation Counseling
12.0507	Waiter/Waitress and Dining Room Manager
47.0408	Watch, Clock and Jewelry Repairer
15.0506	Water Quality and Wastewater Treatment Tech./Technician
14.0805	Water Resources Engineering
49.0399	Water Transportation Workers, Other
48.0508	Welder/Welding Technologist
05.0114	Western European Studies
03.0601	Wildlife and Wildlands Management
20.0502	Window Treatment Maker and Installer
05.0207	Women's Studies
03.0509	Wood Science and Pulp/Paper Tech.
48.0701	Woodworkers, General
48.0799	Woodworkers, Other
36.0118	Writing
51.3017	Zoological Medicine
26.0701	Zoology, General
26.0799	Zoology, Other

GLOSSARY OF TERMS AND ABBREVIATIONS

Terms Used in the CIP:

ACADEMIC PROGRAM. An instructional program that does not lead directly, or by the nature of its content, to qualification for entry-level or advanced practice in an occupationally specific or first-professional field.

ASSOCIATE'S DEGREE. An award that requires the completion of at least 2 academic years of college-level work or the equivalent in an academic or occupationally specific field of study, and which meets institutional standards for otherwise satisfying the requirements for this degree level.

BACHELOR'S DEGREE. An award that requires the completion of at least 4 academic years of college-level work or the equivalent in an academic or occupationally specific field of study, and which meets institutional standards for otherwise satisfying the requirements for this degree level.

CERTIFICATE. A formal award certifying the satisfactory completion of a secondary or postsecondary instructional program or satisfactory performance on test measuring required knowledges and skills.

CREDIT. Recognition of attendance and/or performance in an instructional activity (course or program) that can be applied by a recipient to requirements for a degree, diploma, certificate, or other formal award.

DEGREE. An award conferred by a college, university, or other postsecondary educational institution as official recognition for the successful completion of a program of studies.

DIPLOMA. A formal document certifying the successful completion of a prescribed program of studies.

DOCTOR'S DEGREE. An award that requires advanced work beyond the master's degree at the graduate level, including the preparation and defense of a dissertation based on original research for the academic research doctorates (e.g., Ph.D., S.J.D./J.S.D. or Th.D.), or the planning and execution of an original project involving applied research for the professional research doctorates (e.g., D.P.H., Eng. D.or Ed.D.). A list of commonly used research doctorates and their abbreviations is provided at the end of this appendix. Refer to the definition of "First-Professional Degree" for a clarification of the difference between those degrees which are frequently called doctorates and research doctorates as defined here.

FIRST-PROFESSIONAL CERTIFICATE (POST-DEGREE). An award that requires completion of an organized program of study designed for persons who have completed the first-professional degree. Examples could be refresher courses, or additional units of study in a specialty or subspecialty.

FIRST-PROFESSIONAL DEGREE. An award that requires postsecondary study in the theory and practice of the basic body of knowledge and skills required to function as an entry-level professional in certain occupational fields recognized for reporting purposes by the U.S. Department of Education. These awards require completion of a program that meets all of the following criteria: (1) completion of the academic prerequisites to become licensed in a recognized profession; (2) requires at least 2 years of college-level study prior to entering the program; and (3) is awarded after a period of study such that the total registered time to the degree, including both pre-professional and professional study, equals at least 6 academic years. First-professional degrees, while sometimes called doctoral degrees, are distinguished from true research doctorates in that they do not include a required component of original research or a demonstration of expertise in a field beyond that required to qualify for basic licensing examinations.

First-professional degrees may be awarded in the following 11 fields:

Chiropractic (D.C., D.C.M.)
Dentistry (D.D.S., D.M.D.)
Medicine (M.D.)
Optometry (O.D.)
Osteopathic Medicine (D.O.)
Rabbinical and Talmudic Studies (M.H.L., Rav)
Pharmacy (B. Pharm., Pharm. D.)
Podiatry (Pod.D., D.P., D.P.M.)
Veterinary Medicine (D.V.M.)
Law (L.L.B., J.D.)
Divinity/Ministry (B.D., M.Div.)

HIGH SCHOOL DIPLOMA. A document certifying the successful completion of a prescribed secondary school program of studies, and/or the attainment of satisfactory scores on authorized perfomance tests.

HIGH SCHOOL EQUIVALANCY CERTIFICATE. A certificate awarded to person meeting required levels of performance on the Tests of General Educational Development (GED) or another govermental specified examinations for which high school completion or its equivalent is recognized.

MASTER'S DEGREE. An award that requires the successful completion of a program of study of at least the full-time equivalent of 1 but not more than 2 academic years of work beyond the bachelor's degree.

OCCUPATIONALLY SPECIFIC INSTRUCTIONAL PROGRAM. Instructional programs whose expressed intent is to impart work-related knowledge and skills at the secondary and postsecondary levels. The term has been historically applied to vocational programs offered in grades 11 and 12 at the secondary level, and to postsecondary vocational and technical education programs at the sub-baccalaureate level. The concept, however, applies to any program designed to prepare individuals for work at any level, and thus encompasses baccalaureate and postbaccalaureate programs related to professional education.

PERSONAL IMPROVEMENT AND LEISURE PROGRAMS. Instructional programs that provide individuals with non-credit opportunities to improve their knowledge and skills in areas of personal interest, including leisure time activities, basic skills, citizenship activities, health-related knowledge and skills, and personal awareness and self-improvement. Such programs do not qualify a person professionally, nor do they produce transferable academic credits or recognized degree completions.

POSTBACCALAUREATE CERTIFICATE. An award that requires completion of an organized program of study requiring 30 credit hours beyond the bachelor's; designed for persons who have completed a baccalaureate degree, but do not meet the requirements of academic degrees carrying the title of master.

POST-MASTER'S CERTIFICATE. An award that requires completion of an organized program of study of 60 credit hours beyond the master's degree, but does not meet the requirements of academic degrees at the doctor's level (e.g. Educational Specialist Certificate).

POSTSECONDARY AWARDS, CERTIFICATES OR DIPLOMAS (LESS THAN 1 ACADEMIC YEAR). Requires completion of an organized program of study at the postsecondary level in less than 1 academic year (2 semesters or 3 quarters) or in less than 900 contact hours by a student enrolled full-time.

POSTSECONDARY AWARDS, CERTIFICATES OR DIPLOMAS (AT LEAST 1 BUT LESS THAN 2 ACADEMIC YEARS). Requires completion of an organized program of study at the postsecondary level in at least 1 but less than 2 full-time equivalent academic years, or designed for completion in at least 30 but less than 60 credit hours, or in at least 900 but less than 1,800 contact hours.

POSTSECONDARY AWARDS, CERTIFICATES OR DIPLOMAS (AT LEAST 2 BUT LESS THAN 4 ACADEMIC YEARS). Requires completion of an organized program of study at the postsecondary level in at least 2 but less than 4 full-time equivalent academic years, or designed for completion in at least 60 but less than 120 credit hours, or in at least 1,800 but less than 3,600 contact hours.

POSTSECONDARY EDUCATION. The provision of a formal instructional program whose curriculum is designed primarily for students who have completed the requirements for a high school diploma or its equivalent. This includes programs whose purpose is academic, vocational, and continuing professional education, and excludes avocational and adult basic education programs.

PROGRAM. A combination of courses and related activities organized for the attainment of broad educational objectives described by the institution.

PROGRAM SERIES. A summary of groups or group of related instructional programs designated by the first 2 or first 4 digits of CIP programs.

PROGRAM WITH NO FORMAL AWARD. Any formally organized program with stated occupational or other objectives and well defined completion requirements that does not lead to a formal award.

Abbreviations Used in the CIP:

B. Pharm.	Bachelor of Pharmacy.
B.D.	Bachelor of Divinity.
CIP.	Classification of Instructional Programs.
D.C.	Doctor of Chiropractic.
D.C.M.	Doctor of Chiropractic Medicine.
D.D.S.	Doctor of Dental Science.
D.M.D.	Doctor of Dental Medicine.
D.O.	Doctor of Osteopathy.
D.P.	Doctor of Podiatry.
D.P.M.	Doctor of Podiatric Medicine.
D.V.M.	Doctor of Veterinary Medicine.
J.D.	Juris Doctor.
J.S.D.	Doctor of Juridical Science.
L.L.B.	Bachelor of Laws.
L.L.M.	Master of Laws.
L.P.N.	Licensed Practical Nurse.
M.C.L.	Master of Comparative Law.
M.D.	Doctor of Medicine.
M.Div.	Master of Divinity.
M.H.L.	Master of Hebrew Literature/Letters.
M.S.	Master of Science.
O.D.	Doctor of Optometry.
Pharm. D.	Doctor of Pharmacy.
Ph.D.	Doctor of Philosophy.
Pod. D.	Doctor of Podiatry.
Rav.	Rabbi.
R.N.	Registered Nurse.
S.J.D.	Doctor of Juridical Science.

CONTRIBUTORS TO THE 1990 CLASSIFICATION OF INSTRUCTIONAL PROGRAM REVIEW PROCESS

We are very grateful to the individuals listed below for their valuable time and expertise in reviewing and revising the CIP codes and program descriptions. Without their assistance, this publication would not have been possible. No list of this type is ever totally complete and/or accurate. For those who may have been missed or incorrectly noted in this list, please accept our apologies.

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